THE NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE, HORTICULTURE, AND KINDRED ARTS.

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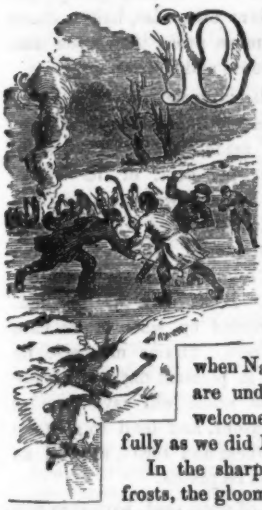
DECEMBER REFLECTIONS.

"While *thus* revolving seasons roll,
Obsequious to God's wise control,
Obedient to his plan;
With silent eloquence they preach,
The most important lessons teach,
To every thinking man."—BLAKE.



DECEMBER, in the grand round of the Seasons, has come at last to close the Months that mark the rolling year.—Though sunshine and clouds seem striving for the mastery, and change is written upon the face of every thing, yet, when Nature's operations are understood, we can welcome her as cheerfully as we did May or June.

In the sharp winds and keen frosts, the gloomy skies and leafless trees of December, we still find evidences abundant of activity and benevolence in the great controlling Power. Peep into the axils of a branch, and behold the dormant life there; or into the seeds floating about in the garden, on wings of down, seeking a place of rest, only to burst into active life again when the genial suns and rains of Spring act upon them!

The flower-garden, perhaps, never gave a picture of greater pleasantness than now, if it has been managed with skill and care. "Nature wills that we shall enjoy her beauties during a certain period of the year, whether we use any efforts towards obtaining them or not; yet she lays it down as a general principle, in regard to her gifts, that to seek them is at once to deserve, to have, and to enjoy them; and that without such seeking, we shall only have just enough to make us sigh after more. Accordingly her sun shines with equal warmth upon the gardens of the just and the unjust, and her rains fertilize the fields of all classes alike. In short, as it is with all the loveliest of her works, Woman, her favors are to be obtained by assiduous seeking alone; her love is the reward, not of riches, nor beauty, nor power, nor even of virtue, but of love alone. No man ever gave a woman his entire love, and sought hers in return, that he did not, to a certain extent, obtain it; and no man ever paid similar court to Nature, and came away empty handed."

Many persons express feelings of gloom and discontent in December. Washington Irving, in one of his finely written papers, says,—"when nature lies despoiled of every charm, and wrapped in her shroud of sheeted snow, we turn for our gratifications to moral sources. The dreariness and desolation of the landscape, the short and gloomy days and

darksome nights, while they circumscribe our wanderings, shut in our feelings, also, from rambling abroad, and make us more keenly disposed for the pleasures of the social circle."

To a rightly constituted mind, there is truth in this view. We have all experienced that truth in many instances. But on the temper and feelings of the selfish and querulous, a very different effect would be produced. Such a person is too prone to exaggerate the inconvenience of the season; the storm is gloomy to him, and he invests it with his own deeper gloominess.

What all more or less need is a fixed *habit* of cheerfulness, which would constitute no small portion of the philosophy of daily life. Cheerfulness, when once it becomes a habitual feeling, finds food and nourishment in all scenes and seasons. Nothing will promote this state of feeling in the farmer, so much as the contemplation of the operations of nature in his animals and fields and fruits. "The man who is keenly alive to the sublime and the beautiful in Nature, frequently finds the cherished feeling of his soul ministered to by objects that to other minds have in them nothing to attract or enliven,—so the cheerful mind derives enjoyment from scenery the most unpromising, and perceives, even in the desolation of winter, a beauty and an expression of its own."

The bee extracts honey, and the spider poison, it is said, from the same flower. So may man extract joy or gloom from the landscape upon which he is looking, or from the circumstances by which he is surrounded. It is greatly a matter of *habit*. Let us see that *our* habit does not tend to extract the poison.

FARM WORK IN DECEMBER.

Mere suggestions are sometimes better than long sermons. In the midst of numerous cares, the farmer is apt to forget the importance of attention to certain things.

In the winter care of stock, for instance, there should be no guess-work as to feeding and tending them. The farmer should employ some portion of the winter evenings in learning their nature and habits, and the adaptation of certain kinds of food to their wants. How many times in twenty-four hours to feed them, is not an unimportant inquiry; nor is that as to the form in which it shall be applied. The better he understands all details in relation to stock, the more profitable will it become to him.

We are inclined to think there is still great loss in our mode of feeding domestic animals. The food is in too crude and bulky a form; it is too coarse, dry and harsh. The natural food of the bovine race is grass,—rich, tender, succulent grass; but in a domesticated state we give them dry, harsh, and in many cases, musty hay. As we cannot supply them through our long winters with what they feed upon in a free state, in more temperate zones, it is our duty and interest to make such feed as we have, more palatable and nutritious. Let us suggest, then, that farmers give the matter more attention by study and experiment during the present winter.

Late roaming in the fields, exposed to high winds, and storms, is injurious to cattle,—especially to cows in milk. The feed they get has little or no nutrition, and the cattle are apt to get into wandering and unruly habits.

Bring them at once to winter quarters. Feed regularly and plentifully. Keep them clean, their skins soft and hair glossy, and with kind treatment otherwise, half a dozen head will yield more profit than twice that number under a loose and shiftless practice.

PERMANENT IMPROVEMENTS.—On every farm annual permanent improvements of some kind should be made, to the amount of from one to four per cent. of its value. Trenches may be dug and walls laid in them sometimes in December, and where wooden fences must be employed, nearly every thing may be done in relation to them excepting setting them up. Balks may be levelled, bushes cut and rooted up, when frosts have not been too severe. Drains may also be laid, trees pruned in pleasant days, and many other things done which will save time at more pressing seasons, and tend to give the farm an air of neatness and thrift, as well as actually to increase its profits.

PEAT.—A bank of good peat, hauled in and stowed away when dry, and used in the barn-yard, under the cattle, in the pigsty and vaults, will yield a better dividend in cash, than a majority of stocks will in the market. Do not neglect this. These deposits have been stored up by a kind Providence, by which

we may restore the lands that have become nearly exhausted by the want of a foresight which it is singular we did not fully realize many years ago.

Machines and Tools.—See, now, that every farm machine and tool is housed in some safe place. They should be put where they will not be trampled upon and upset by cattle and colts, where they will be dry, and where the small ones will not be taken out by the workmen, used a few times and then thrown down in the way. One hand rake in the barn-floor, through the winter, and one or two pitchforks are enough. If more are about they will be in the way, and are quite sure to be broken.

Remember that "order is heaven's first law," and that without it, on the farm, there is little reason to expect profit in anything.

WOMEN AND GIRLS SHOULD READ NEWSPAPERS.

If we were a teacher in any school where the pupils could read, one of the most important of the daily exercises should be *reading the Newspaper*, and that should be one

"With news from all nations lumbering at its back;"

not one with effeminate, sentimental stories, but filled with the business of the moving world,—accounts of floods and fires, earthquakes and cyclones; letters from the tropics and arctics, on politics, arts, religion, poetry and prose,—from legislatures and congresses,—from scientific and agricultural associations,—letters from the library, kitchen and parlor,—from the battle-field, and from all places where human industry, thrift and progress were lifting humanity into a higher scale of being.

The teacher should himself be familiar with such moving events, and able to enforce, by explanation or brief illustration, such principles of importance as are enunciated in its columns.

All the teaching of all the schools, from lowest to highest, would not give the mass of the people an education at all comparable to that which might be gained by these exercises. After a fair reputation, what gives a person, man or woman, a passport into intelligent society? Is it the book teaching of the schools, the deep mysteries of the scientist, or the lore of sages? These are all well for the few, but the masses need other discipline and other mental food. In the battle of life, with them, a *general information*, and a power of adapting themselves to numberless circumstances, are essential to success. The most helpless being among us is he who emerges from the schools, buried in the lore of books, and ignorant of the ways of the world; knowing little of art or science, and who looks with surprise upon the active industry every where about him, and wonders what it all means!

We do not undervalue sound, practical learning; we would encourage it, and sustain it when acquired. But a vast power is wasted every day, even in the schools which, by the popular voice, are considered the best. Thousands of girls and boys are engaged, term after term, in studies which they will never call into practice. They do not intend to become teachers, yet spend more time upon mathematics than many of our best educated men and women did upon *all* their studies. And yet, of the common affairs of life, of the events and business which move the world, they know less than the backwoodsman who never attended a school of more than six weeks at a time in his life.

If a choice were obliged to be made, to accept the teachings of the common schools at the present day, and not read or *hear* a newspaper read, or to have the child peruse a good one, and have its articles properly explained,—we certainly should choose the latter. The newspaper not only gives the best portion of the books, but is constantly commenting upon what has been thought and done, in every branch of human knowledge. Most earnestly, then, do we commend to all, the truths in the following paragraph, which we find is going the rounds of *The Newspapers:*

Ladies Should Read Newspapers.—It is a mistake in female education to keep a young lady's time and attention devoted to the fashionable literature of the day. If you would qualify her for conversation, you must give her something to talk about—give her education with this actual world and its transpiring events. Urge her to read the newspapers and become familiar with the present character and improvements of our race. Our thoughts and our concerns should be for the present world, to know what it is, and improve the condition of it. Let her have an intellgent opinion, and be able to sustain conversation according to the mental, moral and religious improvements of our times. Let the gilded annuals and poems on the centre table be kept part of the time covered with weekly and da[illegible]

journals. Let the whole family, men, women, and children, read newspapers.

NATURAL AND ARTIFICIAL EGG HATCHING.

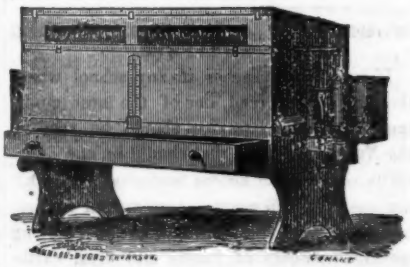
One of the most interesting chapters in the history of birds is that which describes the construction and forms of their nests. Nearly one-half of the five-page article on Birds in the American Cyclopædia is devoted to this subject. But without any book-knowledge of birds, every country boy and girl has noticed the wonderful variety of materials used, and the great skill displayed by birds in building their incubators. A learned and grave professor in a London college, who has made bird's-nests a study, has arranged their builders in twelve groups or classes, calling them Miners, Ground-builders, Masons, Carpenters, Platform-builders, Basket-makers, Weavers, Tailors, Felt-makers, Cementers, Dome-builders, and Parasites, or those that use the nests of other birds.

These different structures, thus various in form, material, workmanship and location, are not only most admirably adapted to the purposes of hatching the eggs and rearing the young, but at least one kind of bird's nests is used for human food, and is sold, it is said, in China for twice its weight in silver. These nests are made by the sea-swallows of the Malay Archipelago, which are a little smaller than our swallow martin. This bird gathers from the coral rocks of the sea, a glutinous weed or marine fucus, which it swallows and afterwards disgorges, and then with this vomit, constructs its nest, which is about the size of an ordinary coffee cup. When freshly made it is of waxy whiteness, and is then esteemed the most valuable as an edible luxury.

But notwithstanding the wonderful variety and perfection of the modes which nature provides for the incubation of the eggs of the different varieties of the feathered races, man has sought out many inventions for hatching eggs by artificial means. In Egypt they are hatched in underground ovens which are heated by burning a fuel made by mixing the offal of animals with water and straw, and forming it into cakes. According to recent statistics published by the government of that country, the number of establishments for hatching eggs in Lower Egypt was 105 and in Upper Egypt 99. In all these establishments 17,418,973 eggs were hatched, and 8,785,527 eggs were spoiled.

Some years ago we published an account of a contrivance for hatching eggs by artificial heat, with an illustration of the machine or incubator used. Some of our good practical readers, who believed that the time of a live Yankee man or woman ought to be worth something more than a sitting hen's, cracked some jokes at our expense for occupying the columns of the FARMER with a description of a substitute for the duties of an old hen.

At the risk of a few more jokes we venture to allude once more to the subject of artificial incubators. We have just been examining an invention which has been advertised in our columns several weeks, and is now in operation at 26 North Market street. Its outward appearance may be represented thus:—



This is by no means a particularly attractive picture. The one that we printed several years ago made a better show. But that failed, practically, and so have all other hatching machines that had been invented prior to this one, devised by Jacob and Henry Graves. This failure resulted from an inability in the machines to regulate the heat and moisture, which are naturally supplied and regulated by the organization and instinct of the mother hen. In the old incubators, with much care to regulate the heat and to moisten the eggs by hand, incubation was more or less successfully effected, but the chickens seldom came out of the shells in a healthy condition. The outer shell was too hard, and the inner lining was too dry and often adhered to the chick. These fatal defects in the operation of previous incubators are now remedied, and the Messrs. Graves claim to have succeeded in producing a machine that is *self-regulating* as to heat, moisture and ventilation, and consequently one that produces healthy, spry and lively chickens.

The heat is produced by lamps at each end of the cabinet, as seen in the cut; but we shall not attempt a description of the ingenious means by which this self-regulation is effected further than to say that a glass tube filled with spirits, inside of the cabinet and connected with a column of mercury on the outside, furnishes the moving power by which one valve increases or diminishes the volume of flame, as the inside temperature rises or falls below the desired degree of warmth, and by which other valves which regulate ventilation and moisture, are opened or shut.

So satisfactory is the operation of this self-regulating apparatus that it has run, in one case at least, forty-eight hours with a variation of only two degrees. The same principle is also applied to what is called an "Artificial Mother," a box or coop lined with lamb's wool, for brooding the chickens.

The chicks which we saw just out of the shell, appeared to be as healthy and smart as those hatched by a hen.

Whatever may be thought of the practicability or economy of artificial incubation, this machinery is certainly ingenious and interesting.

GET LEATHER BITS.—One of the cruelest things done to dumb beasts is putting hard frozen iron bits into a horse's mouth. It is not only painful but a dangerous act. For every time living flesh touches a metal much below the freezing point, the latter extracts the heat from the former and freezes it. Thus a horse's mouth becomes frozen by the cold iron every time it is put into it; each time causing these freezings to go deeper and deeper, to end at last in extensive ulceration. With such a sore mouth the poor horse refuses to eat and pines away, which calls the horse-doctor in. They call it bots, glanders, horse-ail, etc., and go to cramming down poisonous drugs, in doses; and the next you know of the poor abused creature, he is trotted off to be food for fish or the crows. Many a valuable horse has been "mysteriously" lost in just that way. Thinking and humane people avoid this by first warming the bits; but this is much trouble, and sometimes impossible as in night work, like staging and physician's work. Now all this trouble and loss are entirely avoided, as we have found on large trial, by getting the harness-makers to get leather bits for winter use, so made that no metal substance can touch the flesh. They are durable and cost only half a dollar. We wouldn't exchange ours for a gold one, if it couldn't be replaced. Don't fail to try it.—*Rural World.*

CROPS IN SPITE OF DROUGHT.

UNDOUBTEDLY all the changes in the operations of nature, have their compensations. Storms tear up the trees and sometimes demolish our buildings or destroy life, but they equalize in the end the currents of air by scattering their impurities, or change them into healthful breezes. In the rains that undermine bridges and destroy other works of art, come many elements that descend into the soil and fit it to sustain the plants we rear. The whirlwind and earthquake, sand-storm and lightning's flash, do not destroy, but change things from one form into another, and the result of all is the general good.

So it is with the drought. If he will but give attention to it, the farmer will find compensations in the operations of nature themselves, and in the practical lessons which he may draw from them.

Some twenty years ago, the opinion was common that deep ploughing tended to produce large crops; that is, ploughing from nine to twelve inches in depth. That opinion was adhered to quite steadily until recently, when many doubts have been expressed as to its soundness.

At the December meeting of the Massachusetts Board of Agriculture in 1867, when the subject of ploughing was discussed, a majority of the speakers expressed themselves as opposed to the practice of deep ploughing. At the winter meeting of the New Hampshire Agricultural Society in 1869, the prevailing opinion was, that deep ploughing is essential to profitable farming.

It seems as though this question ought to be settled by this time, so that every beginner may enter upon the work without a shadow of doubt on his mind whether he shall plough deep or shallow.

A careful observation by the farmer will

soon convince him that plants thrive best where they stand upon a deep and pervious soil; one which rain water, and also the air and the sun's rays can readily penetrate. The roots of plants travel in search of food, and in so doing, if they approach a dry, compact soil, they will turn aside and seek a way which is more easily penetrated; and that way will be one which will usually be moist and afford the most food.

We are clearly of opinion, that soils which are made up of less than fifty per cent. of sand, drained and ploughed 12 inches in depth, finely pulverized and well manured, will bring a fair crop any year, be the weather wet or dry.

If too much rain falls, such a soil will allow it to pass readily down out of the way. If too dry, it will retain and use all the dew that settles upon it. If too dry and hot, the evaporation on the surface will cause the water to ascend from the porous subsoil; this water always brings with it a quantity of saline matter, which it leaves behind when it rises in vapor. The longer, therefore, the dry weather and consequent evaporation from the surface continues, the larger will be the amount of saline matter coming towards the surface.

The saline matter is just what the plants need, and it will certainly come to them if the soil is in a condition to admit its passage up. These views are corroborated by a very able writer, C. C. Langdon, of Mobile, Ala., which we find in the *Rural Carolinian*, one of our most valued "exchanges," published at Charleston, S. C. He says:—

"In a soil thus prepared, the roots not only descend without obstruction to a depth sufficient to be beyond the reach of the burning atmosphere, but the moisture from below it is raised to the roots by *capillary* attraction in time of drought, while, in seasons of too much rain, the water is made to sink below the roots by the attraction of *gravitation*. A familiar illustration of the *modus operandi* of these important and interesting agencies is thus given: 'If you immerse a compact loaf of sugar in water, it will require many minutes for the fluid to penetrate through all its parts; but, if you reduce it to powder before applying the water, it will be saturated in a few seconds. Just so it is with the earth. If you break it shallow, and leave it in clods, it will be slow to absorb the moisture from below; while, if you plough it very deep and close, and thus separate its particles thoroughly, it will, like the pounded sugar, take up the moisture with very great facility.' Every year we hear complaints of injury or destruction of crops by drought. It is time for intelligent farmers to understand that all this is the result of a defective system of culture, and that it is entirely within their power to guard against any such calamity. Examples are numerous of the entire success of the system, and it is founded in reason and sound philosophy. There is nothing at all mysterious about it, and nothing to prevent its universal adoption."

OLD MORTAR BY THE ROADSIDE.—Notwithstanding all that has been said with regard to the value of lime added to the soil, there are many persons who do not use it, even when it is in their way and must be disposed of. It is not uncommon to notice a cartload or two of old mortar, carried out from a house that is undergoing repairs, and dumped down by the roadside! Here it remains for years, perhaps, in the way, and an unsightly blemish upon the premises. We know of such heaps on farms now, where they have been lying for a long time, and this, too, where the owner raises wheat. Broken up and spread where wheat is sown, we have known it to add materially to the crop, and so we suppose it would benefit any of our old gardens, if made fine and mingled with the soil. On clay or peat lands, the sand contained in the mortar would be of essential service.

WINTERING SHEEP.

Winter is near at hand and every owner of a flock of sheep should make his arrangements for it. In most of the Northern States an exaggerated feeling of discouragement still pervades the growers of fine wool. Many of them wintered their flocks poorly last winter, on the ground that they could not afford to feed them well—and probably will do the same this winter. This in our opinion is a cruel and suicidal policy. Less returns are thus obtained from a given amount of food. Thirty half starved sheep will produce less good merchantable wool than twenty properly kept ones; will lose twice or three times as many by death; and will not raise half as many lambs. And what farmer possessing a spark of humanity is willing to see these poor defenceless animals slowly growing thinner and weaker—all of them tottering before March closes—many of the inlambed ewes incapable of rising with their burthen, and dying in parturition. A more painful spectacle of brute suffering than a flock in such condition near the close of winter, cannot be witnessed, and we believe that morality has a voice in this matter as well as humanity.

Every flock master who has more sheep than he can keep properly or sell, should kill the surplus when winter sets in, if he gets nothing from them but the pelts.—*Dr. Randall, in Rural New Yorker.*

—William A. Wheeler writes to the New York Farmers' Club that he has known a very foul cask to be entirely cleansed by filling it with dry earth and leaving it four or five days. The earth treatment, followed by scalding lime-water, will sweeten anything but a very old and rancid tub.

TO KEEP CELLARS FROM FREEZING.

An untold amount of labor is annually expended in New England in banking up with earth about the dwelling to *keep the cellar from freezing*. That process has already been commenced all about us, and is a dirty and expensive one; and one which, when the work is well done, does not always accomplish the end sought.

The method adopted, as described below, was tried by a gentleman with the cellar of an outhouse, in which, on several occasions, vegetables had frozen, although the cellar was fortified by a process well known to farmers as "banking." The mode of proceeding is given by the *Scientific American* as follows:

The walls and the ceiling were pasted over with four or five thicknesses of old newspapers, a curtain of the same material being also pasted over the small low windows at the top of the cellar. The papers were pasted to the bare joists over head, leaving an air space between them and the floor. He reports that the papers carried his roots through last winter, though the cellar was left unbanked, and he is confident they have made the cellar frost proof. We do not counsel the special use of old newspapers for this purpose. It is just as well or better to use coarse brown paper. Whatever paper is employed, it will be necessary to sweep down the walls thoroughly, and to use a very strong size to hold the paper to the stones. It is not necessary to press the paper down into all the depressions of the wall; every air space beneath it is an additional defence against the cold.

Banking up a house, is not only laborious and expensive, but the earth coming against the wood work, keeps it wet through the winter. The wood dries when the earth is removed, and this change going on from year to year, not only rots the clapboards and boarding, but it is extended to the sills of the house. They become rotten, give way to the weight resting upon them, and then the floors become uneven, the doors will neither open nor shut, and the whole house is in a state of ruin. Such are some of the results of banking up the house!

We have no doubt that the process described above will prove efficacious. Try it. It is inexpensive and easily done. Riding in the cars between Boston and New York on a cold winter night, we suffered exceedingly with cold feet. A fellow-traveller suggested that they would soon become warm if wrapped in a large newspaper! We did so. In half an hour they were warm, and we fell asleep. Many times since the newspaper has been used where a blanket was needed, from which decided comfort was obtained.

Writing the above quite near a large window against which the cold November wind is beating, we became quite chilled, although the temperature of the room is nearly 70 degrees in the centre. Hanging a newspaper against the window, we are no longer chilled, let the wind blow as it will. So, if you value your potatoes, apples, and a warm floor under your feet, put the newspapers in place at once, and thank the thoughtful and painstaking person who made the discovery!

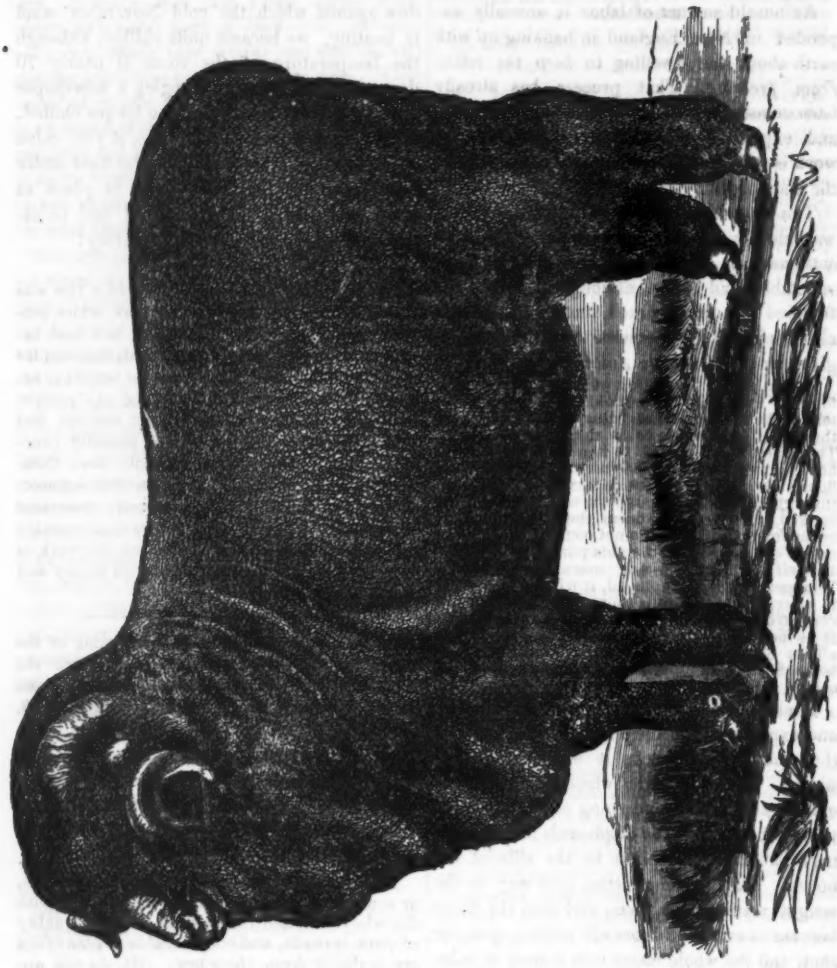
Co-operative Drainage.—In 1869 a law was passed by the legislature of New York, which provides that, where there is any low, wet land belonging to several persons that needs draining for the sake of the public health, or the benefit of agriculture, any freeholder interested can petition the County Judge to have the land drained, and have the expense assessed on the property benefited. The County Judge appoints three Commissioners, one of whom shall be a civil engineer, and none of whom shall be personally interested in the work. These Commissioners shall examine the land, and, if in their judgment the work is necessary, they have power to borrow money and commence operations at once.

Change of Time.—At a recent meeting of the Massachusetts State Board of Agriculture the winter session at Framingham was changed from the 6th, 7th and 8th of December, to December 13, 14 and 15.

Pork Fattened on Whey.—In some remarks on feeding hogs at cheese factories, in a late article in the *Rural New Yorker*, Mr. X. A. Willard says:—

In feeding whey to hogs, bran, ship-stuffs, or some kind of meal should be mingled with the whey. When this is done, a good quality of pork is made, and considerable profits often are realized from the whey. We do not approve of keeping hogs exclusively upon whey. It does not contain the elements of nutrition in the right proportion to preserve the animals in good health and make the best quality of pork.

It is true, hogs will live upon whey and take on fat, but the pork is soft, watery and of inferior quality. It is doubtful whether such pork is a healthy article of food, as swine fed exclusively on such watery slop soon show symptoms of disease. Still, many dairymen keep a portion of their hogs on whey alone, and sell in early fall to the butcher or packer. We notice that those who make a practice of feeding swine exclusively on whey do not generally put up such pork for their own consumption.



A THREE-THOUSAND-DOLLAR AMERICAN MERINO BUCK,

OWNED AND KEPT BY ROLLIN GLEASON, BENSON, RUTLAND COUNTY, VERMONT.—[See page 561.]

Farmers' Clubs. There will probably be more Farmers' Clubs in operation in New England this winter than ever before. The State Board of Agriculture of Maine set the ball in motion in that State pretty effectually, last winter. The objections that such associations frequently run out, or their exercises run down, is entitled to less consideration than it receives. We learn to walk by repeated falls. "Up, and try it again," and avoid the misstep this time that caused the stumble before. The new Board of Agriculture of New Hampshire are about to prepare notices which will be sent to different towns, in which some one or more persons will be requested to move for the organization of clubs in their respective towns.

—The census takers have found a little paradise on an island in Narragansett Bay. All the men and all the women work; the climate is good, the soil grateful, and there is not a criminal, a pauper, or a house-servant on the island.

MEAT AND PROVISION MARKETS OF BOSTON.*

DEPARTMENT OF AGRICULTURE,
Washington, D. C., Oct. 8, 1870.

EDITORS AND PROPRIETORS NEW ENGLAND FARMER. BOSTON, MASS.

Gentlemen:—I desire to collect information concerning the market system of our principal cities with especial regard to abuses in the usages of commission dealers and other middle-men, and respectfully ask attention to the following points:

1. Number of days in the week and hours of the day in which farmers are permitted to sell from their wagons.
2. Amount of space at the market-houses and on the streets, which they are allowed to occupy.
3. Price obtained by middle-men or hucksters compared with the rates allowed by them to producers.
4. The bearing of prevalent usages of commission-men upon the interests of producers.
5. Amount of license (if any,) required of farmers, and other municipal restrictions or requirements in respect to their sales.

An article in your paper giving an account of the characteristic features of the markets of your city, and bearing on the above particulars, would be a valuable contribution to the object which I have in view. Will you have the kindness to consider the subject, and in case you publish such an article, forward to me a marked copy of the paper containing it. Yours very respectfully,

HORACE CAPRON, *Commissioner.*

REMARKS.—Before proceeding to answer the foregoing questions, it may be well to allude briefly to the history of markets in the city. It would seem that, from the earliest times to the present, public opinion has been divided as to the proper course for the authorities to pursue in this matter, and as to the effect of the various systems which from time to time have been adopted.

Taking our figures mainly from a report of a joint committee of the Council and Board of Aldermen, on the subject of markets, made in 1865, we learn that market places were first established by the city authorities in 1733, when the population of the town was but 15,000, and buildings were erected in three localities. Every day was market day, from sunrise till one o'clock. Forestalling was prohibited, and also purchasing marketable articles elsewhere than at the markets. Public feeling, for some unexplained reason, revolted against this plan, and in 1737 the Centre market was pulled down by a mob, and the town voted to appropriate the other two to different uses.

In 1740, Peter Faneuil offered to build a market-house in Dock Square, which offer was accepted by a vote of 367 to 360; and, in 1742, "Faneuil Hall" was erected.

In 1746, a vote was passed to shut up the market-house, and it remained closed till the next spring, when the town went into the market business itself, employing three butchers to bring in a supply of meat, and allowing them five per cent. on the sales for their compensation. Afterwards the offal was added to the commissions of the butchers. This plan continued till March, 1749, when £1,000 was voted to the clerk of the market to settle up its accounts, and Faneuil Hall Market was opened again. In 1752, it was again closed, complaints being made of crowded streets and nuisances.

In March, 1753, it was voted to lease the stalls in Faneuil Hall Market. In 1757, a committee reported that high prices were caused by too long market hours. In 1761, the market-house was destroyed by fire. In 1763, forestalling was again complained of, but no action was taken. In 1767, the town was requested to build a fence, and to charge fees for stands inside of it; and the citizens were requested not to purchase of "disorderly persons" outside. In 1778, a committee reported against forestalling, and the inhabitants agreed to make two dinners a week on fish, and not to have more than two dishes of meat the same day, and to avoid poultry. A few days afterwards the fishermen were complained of for exorbitant prices. In 1779, regulations were adopted forbidding purchases elsewhere than at fixed localities.

In 1805 Faneuil Hall was rebuilt and enlarged, covering nearly twice its former area. This with the surrounding streets answered as the market place of Boston, till, under the mayoralty of Josiah Quincy, Sen., the new building was erected in 1825. Though the legal and proper name of this structure is Faneuil Hall Market, it is often called Quincy Market, in remembrance of the exertions and wise foresight of Mayor Quincy. Up to this time those who occupied street stands paid a fee therefor, and the streets were uncomfortably crowded.

The new building is 535 feet long, and 50 wide, with streets on each side, known as North and South Market Streets, 100 feet wide, the whole length of the building. At first the new building furnished more stalls than were required, and those under Faneuil Hall were given up and the space divided and rented by the city, for stores. But the demand for stalls having increased, the lower story of old Fa-

neuil was re-opened for market purposes in 1858, and is so occupied at present.

These two buildings, separated only by a street, together with the cellars and the adjoining streets, constitute Faneuil Hall market, which is the only market owned and controlled by the city. In the new building, there are 132 stalls; in the old, 32; total 164. These stalls and the cellars are let at a fixed rent, for a term of years, to tenants for selling at wholesale and retail all kinds of meat, fish and provisions. The adjoining streets are occupied by farmers and others without fee or rent.

The Superintendent or Clerk of the Market divides the space thus assigned into six divisions. We are indebted to Mr. Rice, the present Clerk, for the following table showing the number of wagons that have occupied these street stands during the month of September:

First Division—Varieties*	1223
Second Division—Dressed Hogs	18
Third Division—Dressed Beef	1277
Fourth Division—Vegetables	3620
Fifth Division—Tripe	76
Sixth Division—Mutton	628
Total number of wagons during the month,	6842

As to the value of these stands, we may remark that one individual who occupies one of them, and also one of the inside stalls, said that his outside privileges were worth more to him, though free, than the inside, for which he paid a heavy rent.

Although the city owns Faneuil Hall Market, there are no restrictions on private enterprise in the construction of other and competing markets, stores or stalls for the sale of meats, vegetables, &c., all of which are as free from municipal restrictions, except as to selling unwholesome articles, as is the traffic in groceries or clothing.

We have obtained a list of the following "markets" built by individuals, in which stalls are rented by the owners thereof in a manner similar to those in Faneuil Hall Market:—

	Stalls.
Blackstone, 72 to 92 Blackstone Street,	19
Boylston, corner Washington and Boylston,	20
Central, 50 North,	20
Lakeman, corner Blackstone and North,	32
St. Charles, Beach, corner Lincoln,	14
Suffolk, Portland, corner Sudbury,	24
Union, Union, between North and Hanover,	24
Washington, corner Washington and Lenox,	90
Williams, Washington, corner Dover,	28
Total stalls in these nine private markets,	271
Total in Faneuil Hall Market,	164
Total in all the "Markets,"	435

*Beginning at the head of South Market Street, the first division is assigned to the sale of poultry, butter, apples, berries, &c., and is called the "Variety Stand."

Showing that the city controls little over one-third of the stalls in the markets within the limits of the city proper. South Boston, East Boston, Cambridge, Charlestown, &c., have spacious markets, not included in the above list.

Washington Market, a fine structure at the south part of the city, with its 90 stalls, was built by Wm. Evans, Esq., the past season, and we understand that most of its stalls are already rented, and that it opens with the most encouraging prospects of success, and of being a great accommodation to that part of the city. The lot on which it stands is 300 feet deep by 116 front, and 130 rear. It has a yard 240 by 60 feet, intended for the accommodation of wagons, for the use of which it is proposed to charge a small fee. As elsewhere, wagons will probably be allowed the ordinary street privileges.

Boylston Market has been occupied about 60 years, and wagons have always had the privileges of occupying a portion of the adjacent streets, and venders the space in front for temporary stands.

From the reports of the police for the present year, it appears that the number of private establishments for domestic supply, is as follows:—

Stores for the sale of meat,	25
Stores for the sale of vegetables,	51
Stores for the sale of meat and vegetables,	219
Stores for the sale of groceries and provisions,	342
" " " groceries and vegetables,	326
" " " vegetables and fish,	65

We will now answer as well as we can the direct inquiries of Commissioner Capron.

Question 1. Number of days in the week and hours of the day in which farmers are permitted to sell from their wagons.

Farmers are allowed to sell in the streets adjoining Faneuil Hall Market every day in the week, except Sundays, from 2 o'clock to 11, A. M., and from 2 o'clock P. M., till sundown. Here farmers from any distance may sell their own products, or those of their neighbors, in such quantities as they choose, from a cent's worth to a whole load, and to whoever will get up early enough in the morning or stay late enough in the day to trade with them. Farmers or "any other person," may also peddle from house to house in all parts of the city, meat and provisions, with no restriction as to the articles being produced by the one who offers them for sale. In confirmation of these statements we quote the

following State law, passed in 1859, and still in force:—

SECT. 1. The City of Boston shall make no by-law, ordinance or regulation excluding from the occupation of street stands, within the limits of Faneuil Hall Market in said city, as the same are or may be defined in the city ordinances, for the sale of fresh provisions and perishable produce, any persons taking such stands for the sole purpose of selling such fresh provisions as perishable produce; *provided* the same are the product of the farm of the person offering them for sale, or of some farm within ten miles of the residence of such person; or are to be sold at wholesale only by the party offering the same for sale on commission for, or as agent for some person or persons not residing or having a usual place of business within eight miles of said market; or are meats to be sold at wholesale only by the person who slaughtered the animals of which the same was a part. Approved, April 6, 1859.

And also the following city ordinance passed Dec. 14, 1857:—

Any person may offer and sell, from house to house, in any of the public streets, lanes, alleys or squares in this city, from carts, wagons or sleighs, any meat, poultry, vegetables, fruits, or other article of provisions, on all days when Faneuil Hall is open.

In the 34th section of the city regulations in relation to carriages, it is provided that the rule forbidding vehicles to stop in the streets more than five minutes, without some suitable person to take care of them, or more than twenty in any case, shall not apply "to the vehicles of market or provision men who may stand with the same without the limits of Faneuil Hall Market until eleven o'clock in the forenoon, at such places in the city as the board of aldermen may designate, for the purpose of vending provisions."

That the provisions of these laws relating to peddling in the streets of the city are not dead letters, though not extensively practiced, probably for the reason that families prefer to obtain their supplies in other ways, is evident from the fact that from 20 to 40 peddler's carts are filled every morning at Faneuil Hall Market, as may be seen by any early riser who will visit the market about day light; and from the fact that the police officers report that in May last there were 93 wagons going from house to house in different sections of the city.

QUESTION 2. Amount of space at the market houses and on the streets which they are allowed to occupy.

There is no space *in* the buildings appropriated to this purpose. In the streets adjoining Faneuil Hall there is room specially designed for this purpose sufficient to accommodate about 200 wagons; but sometimes as many as 500 find accommodation by using a portion of Commercial, Blackstone and other adjacent streets. Here, as elsewhere in Boston, business lacks elbow room, and farmers, teamsters, and even pedestrians are somewhat discommoded thereby.

QUESTION 3. Prices obtained by middlemen or hucksters compared with the rates allowed by them to producers.

We have not the data for a reliable answer to this question. Statements have been made of a great advance in selling, over buying prices, in some cases, and instances have been related in which articles have been sold much under cost. We know of no market regulation or practice which gives undue advantages to "middlemen or hucksters." Here, as in all other branches of business, sharpers and tricksters occasionally show their hands, but not more often, we believe, than in other departments of trade.

QUESTION 4. The bearing of prevalent usages of commission-men upon the interests of producers.

We know of none that have an injurious effect. No farmer is obliged to employ them. Any one can do so who chooses. A large amount of business is done by them. They at least furnish the second string to the bow of farmers. If not satisfied with the prices offered by buyers at home, farmers send their produce to the commission dealers, whose terms and conditions of doing the business are, or may be, well known. Farmers, we think, are also benefited by these commission dealers, in their tendency to destroy the effect of combinations among the ordinary dealers. A farmer comes to market with a load of butter, pork, beans, potatoes, apples, beef, mutton or other produce. He does not wish to retail. The wholesale buyers are ugly. They offer lower prices than he thinks they ought to pay. The commission houses give him a chance of testing the market by the use of their facilities; and whether he get more or less than he was offered by regular buyers, he is better satisfied than he would have been to accept what he believed was less than market price. A drover finds a sticky market; there is no "turkey" in all the talk of the butchers; they don't want his cattle or sheep at any price. He thinks they are bluffing, and turns over his stock to be butchered and marketed on commission.

The present rates of the commission dealers are 50 cents per 100 lbs of beef; veals 30 cents, and sheep and lambs 16¾ cents per carcass; potatoes and apples 25 cents per barrel; poultry, butter, beans, &c., five per cent on sales, which are guaranteed; that is, if the articles are trusted out, it is at the risk of the commission man. The farmer or consignee is paid the full amount as soon as a sale is effected, and often a portion of the money is advanced on receipt of goods.

For the past ten years we have met the sellers of live stock at this market weekly, many of whom sell that of their own raising. We have heard them discuss very freely all the regulations and practices of the market, and if any "prevalent usage" of commission-men or others was antagonistic to their interests we should have heard of it. The "prevalent usages," and whatever there is of "system," are such rules and regulations as parties have established for their mutual benefit, and which are changed as convenience and interest requires. The simple fact is that the market was never *established;* it *grew* up, and whoever investigates the subject will be surprised to find how nearly the thing still "grows of itself." A farmer who wishes to come to market with a single car-load of cattle or sheep or swine pays no more for transportation or yardage than a regular drover, and he has the same rights and facilities for selling his own stock that a drover has, excepting, perhaps, experience in the business, and the same is true of other kinds of produce.

QUESTION 5. Amount of license (if any) required of farmers, and other municipal restrictions or reqirements in respect to their sales.

There is no market license required by the city. The other part of the inquiry has been answered already, as far as we are able to do so.

Some five years ago, while the question of a free market was under consideration by the city government, the following petition was signed by Jeremiah Russell, of West Cambridge, who had then been in the business thirty-four years, and by fifty-one others, and presented to the committee to whom the subject had been referred:—

To the Committee on Free Markets:—

Gentlemen:—We, the undersigned market men, from the towns and farms in the vicinity of Boston, being in the farming and producing business, and bringing our produce and that of our neighbors to Faneuil Hall Market for sale, would respectfully represent to your Honorable Committee that the privilege that we now have at the market is all that we ask. We dispose of our produce just as we please, from one cent's worth to the whole load, as it suits our convenience and interests. We have the privilege of standing with our wagons at the said market as long as it is necessary for the sale of our produce, and, if we prefer, we can retail from house to house all over the city. We, therefore, most respectfully request that the present regulations of said market may remain as they are at the present time, believing them to be all that the producers need or ask for.

And the following by S. F. Woodbridge, who had been in the business twenty years, and by thirty-nine others:—

To the Market Committee:—

We, the undersigned beef and mutton butchers, being in the business of buying and slaughtering beef and mutton, and bringing the same to Faneuil Hall Market for sale, would respectfully represent the present regulation of the market is all that we ask for, and that any alteration in the present system would not be of any benefit to either seller or purchaser. We most respectfully request that the present regulations may be continued.

UNION CATTLE MARKET.

Cambridge Cattle Market is soon to be given up. The division of the estates of the old proprietors, Messrs. Porter and Meacham, together with the demand for the land occupied by the yards for building purposes, have made the abandonment of this market necessary. Anticipating this event, the managers of the Fitchburg railroad purchased in Watertown, several years ago, some thirty acres of land well located and admirably adapted to the purposes of a cattle market. Having received notice that the yards at Cambridge must be closed, President W. B. Stearns of the Fitchburg Railroad, with some of the directors, visited some of the principal cattle markets of the country to examine the plans and arrangements which have been adopted for the convenience of buyer and seller, and for the comfort of the beasts. The proprietors of the present Boston cattle markets have been slow to adopt the modern improvements that have been enjoyed for some time at Albany, Chicago and elsewhere, particularly in regard to shelter of animals from storms. But in the grounds at Watertown it is the object of those who have the charge of the work, not only to adopt the conveniences of the best markets, but to make such improvements as experience here and elsewhere have suggested.

At the commencement of operations at the Union Cattle Market, a stone culvert the whole length of the ground was laid. Into this, pipes will discharge the drainage of the yards, which are to be constructed, not on the surface soil, but on gravel, under much of which is a layer of broken stone. Both stone and excellent gravel are found on the grounds, and a large amount of grading is now being done.

We visited the location a few days since, but as

our stay was brief, we rely on the correspondents of the *Advertiser* and *Journal* for most of our figures. The wharf or landing, full half a mile in length, is built of stone with its foundation below the reach of frost, with hewn granite blocks for cap-stones. Between this landing and the Shute yards is a passage or space ten feet wide. Each of these landing yards is to be equal in length to that of an ordinary stock car. The gates of these receiving yards will open each way so as to form a fenced passage from the car to the yard; an arrangement which it is believed will prove very useful to the drover in unloading stock.

These receiving yards open on the opposite side from the cars into a regularly laid street, made of choice gravel and macadamized stone, forty-five feet wide; this street is to be lighted with gas, as well as the interior of the sheep houses. From this street stock passes into sale yards, as well as into the sheep and swine houses, which are large, monitor roofed, well ventilated buildings. The sheep houses are divided into pens that will admit from 125 to 150 sheep, with every convenience; sheep racks, troughs and shelves for salt and other food. There are twenty-six double pens in each house, giving each dealer an opportunity to assort his flocks. Platform scales are situated at the junction of the different entrances in the centre of the buildings, and will admit 200 sheep at a single draft.

The double cattle yards, with sheltered roofs, are in close proximity to the sheep houses, extending from the main street, up the gradual rise of land, with ample accommodations for food and water. There are also fine accommodations for hogs and calves, and everything possible is provided for the comfort of man and beast.

The Corporation have also erected a hotel three stories high, with French roof, and basement, containing 100 rooms. The office will be situated on first floor, 41 by 32 feet, with another room equally as large for the drovers' and butchers' especial use.

There is also to be connected with the market a hay barn, 70 by 100 feet. The office is in a central position, easy of access, with large platform scales. There is also a brick building, directly back of the office, containing a tank and caloric engine, to supply the yards with water. An abundance of the needed article is obtained from pipes driven into the ground, and through the help of the engine and iron pipes, every yard receives a sufficient supply.

The whole site is protected from northeast winds by a rise of land. Before commencing operations on these grounds, it was thought they might be ready by the first of October, but the amount of grading, underdraining, building, &c., is so great that even with the large force now employed the work will hardly be completed before the first of January.

STRAWBERRY BEDS.

Most persons who have land, now raise strawberries, many or few. They are found not only in the gardens of the rich, and in the snug and highly cultivated patch of the mechanic, but have at last found their way to the *farm*, where a plot of ground is made fertile and devoted to this rich and wholesome fruit.

An opinion was common some years ago that the strawberry does not require a rich soil, but a great abundance of water. It certainly does like the water, and we are quite sure that it likes to luxuriate in a rich, deep, and mellow soil. The crop will generally be in proportion to the richness of the soil. We may be told that they grow luxuriantly in meadows. So they do. But those meadows probably abound in the very elements which the plant needs.

Before the ground freezes, it will greatly promote the crop the coming summer, if the weeds and grass are taken out from among the plants, and the ground made light and fine among them, and well manured. Somebody—we do not know who—has given good advice below, which many may profit by in acting upon it, though a portion of the advice comes rather too late.

"Don't delay attention to your strawberry beds, if nothing has been done to them since fruiting season. Go to work and plough or spade up the ground between the rows thoroughly. Work up the soil in the rows with a fork, hoe or spade, cleaning out all weeds; cut off all the old tops, and scatter a liberal supply of well decomposed manure among them—nothing better than hen manure and ashes mixed with mould from the woods. It is also a good plan before spading or ploughing the soil between the rows, to scatter a compost on and turn it under. The roots are greatly benefited by coming into contact with such.

If your bed has been allowed to grow "hilter-skilter" heretofore, and covers the entire surface, simply draw a line and cut it with the spade to show where the edges of the rows are to be, and then spade under the vines between the rows, leaving rows about six inches in width and eighteen inches apart from centre to centre. If the plantation is left in its present condition, it will be of no value another season. Remember, the more new roots the plant forms this season before winter sets in, the larger the crown will become, and the more fruit stalk germs will be formed this fall, and the greater the crop another season. It is a mistaken idea with many that the fruit germ is formed in the spring. Feed them well now and they will feed you in return next season."

The Jerseys Nudged.—Mr. C. L. Flint, who has imported one or two lots of the little Brittany cattle into Massachusetts, in speaking of them recently said: "Nothing is superior to the butter from Jerseys, so far as looks and texture are con-

cerned; but it is probably well known that it lacks flavor. The distinguishing characteristic of the butter from the Brittany cow is a certain sweet, delicate, nutty flavor, in which it is as much ahead of any Jersey cattle I ever saw, as the Jersey butter is ahead of any other *in looks*."

SHARP STICKS UNDER MUCK.

Our correspondent, Norman Call of Allenstown, N. H., has been at work, as have many other farmers this dry fall, on his muck bed. The muck is nearly four feet thick, and solid enough to bear up a team, and it lies on a bed of white sand. We find the following statement in the Keene *Republican:*

In the course of the digging, large numbers of sticks, about two inches in diameter and from six inches to two feet long, have been found on and driven into the sand. The wood can be easily distinguished by the eye, as maple, hemlock or oak, and the remarkable part of the story is that each and every stick is sharpened at each end, as if by a tool with a poor edge. One of these sticks was driven into the solid sand a foot and a half, six inches being in the muck. On being taken up, the wood becomes very dry, cracking badly lengthwise and growing as light as charcoal.

The questions, Who sharpened these sticks, and for what purpose were they driven into the sand so long ago as to allow of the accumulation over them of a stratum of muck four feet in thickness, are asked, but not answered.

AGRICULTURAL ITEMS.

—In Connecticut and New England generally, that of 1870 has been the hottest July for 92 years.

—The California steam plough is one of the attractions at the Cincinnati Industrial Fair.

—An exchange says Mr. Frank A. Danforth has engaged 5000 bushels of cider apples at 20 cents a bushel, delivered at the mill at Norway, Me.

—Prof. Hilgard of Mississippi says that cotton seed takes nine times as much nutriment from the soil as the lint.

—In Marshall County, Kansas, a field that received no rain from sowing to reaping, yielded 31½ bushels of wheat per acre.

—The beet sugar business prospers in California. That State has 400 acres in beet and a factory costing $20,000.

—S. F. Browning of Northfield Farms, Mass., has raised 65 bushels of wheat this season on a trifle less than two acres of land, after tobacco.

—Prizes and medals amounting to $8,505 were offered by the New York State Agricultural Society this year.

—On a ranch on Carson river is to be seen a herd of 26 camels, all of which but two are native Californians.

—The St. Joseph (Mich.) *Herald* says:—"The destruction of potatoes by the potato bug has been so complete that potatoes have retailed in St. Joseph at $1.80 per bushel. At least one-half the whole crop of Western Michigan has been destroyed."

—The estimates of the Agricultural Bureau place the present year's wheat crop at 210,000,000 bushels—48,000,000 less than that of last year.

—A Connecticut man writes the *Country Gentleman* that two applications of salt water cleaned his hogs of ticks, with which they were covered this summer.

—Tennessee is becoming a great potato growing State, and has a very large crop this year, which is also of fine quality, the potatoes in some fields averaging a pound apiece.

—The Briggs Brothers, of Marysville, Cal., have cultivated the present season about one hundred and fifty acres of castor beans. Somebody has got to suffer.

—A farmer of Goshen, Conn., one of the best dairy towns in the State, doubted if the cows in that town would average two quarts of milk to a milking, during the latter part of the late drought.

—The New York *Horticulturist* says we have never discouraged the planting of fruit, but the indications at present show that it is sometimes slightly overdone.

—Ploughing up potato fields late in the season, will be the means of killing a great many potato beetles by freezing; the ground in some sections is full of them already.

—A correspondent of the *Prairie Farmer* says an individual is travelling through Iowa, claiming $5 of farmers who have drive-wells, as license for using the patent.

—On one farm in Scotland, which does not exceed five hundred acres, there were over four hundred miles of drains, several years ago, and the work was not then regarded as complete.

—A horse owned by the Belfast and Rockland Stage Company, Maine, travelled from Belfast to Rockland and back, 56 miles, every day for six consecutive days. He was thus driven to decide a wager on his endurance.

—A correspondent of the *Southern Cultivator* recommends cobs as manure. He furrows out his ground, places three cobs at the distances he wishes his hills, say three feet apart, hauls on the earth and plants corn over the cobs.

—Hon. Judson Lee, who was raised a farmer's son on the Pelham, Mass., hills, but was afterwards Mayor of the city of New York and member of Congress once remarked, "My father left me an independent fortune—fifty cents in money, and industrious habits."

—Mr. I. T. Tillinghast of Factoryville, Penn. recently undertook to watch some bees working freely on white clover, with the view of ascertaining how rapidly they gather honey. Selecting a bee that looked quite empty, he watched her just

an hour, in which time she visited five hundred and eighty-two clover heads, when he lost sight of her in flying over some weeds, and does not know that she was even then fully loaded.

—The next meeting of the Maine State Board of Agriculture will be held in Farmington village, at the Court House, about the 1st of January. In connection with this meeting the Farmers' Convention will be held. We shall give further particulars hereafter.

—A few days since, at an auction sale in Bangor, Me., 43,000 acres of timber land were sold at prices varying from $1 48 to $1.75 per acre. The aggregate sum realized was about $70,000. This was one of the largest sales of timber land ever made on private account in Maine.

—Mr. J. A. Harwood of Littleton, Mass., has a fine young peach orchard of nearly two thousand trees, about two hundred of which are in bearing. His crop this year amounts to about one hundred and fifty bushels, which he sold for not less than $6 per bushel, amounting to $900 or more.

—The cattle disease, which broke out in Egremont and the western part of Great Barrington last summer, is still prevailing, and extending its ravages among horses, sheep, and swine as well. George M. Hollenbeck of Egremont has lost nearly $1500 worth of stock, and several other farmers have lost five or six hundred dollars' worth a piece.

—The farmer who raises produce for a distant market is limited to a few articles, such as wheat, corn, rye, &c., which greatly exhaust the soil—while he who has a market near at hand can cultivate any product for which his soil and climate are adapted, and can have a thorough rotation of crops, so necessary to preserve the vitality of the soil.

—The Maine *Farmer* discusses the value of sawdust for bedding as follows: There is a great difference in the value of the different kinds of sawdust. For example, while hard pine sawdust from the shipyard is pure and sweet, even fragrant, and readily takes up the urine, it is not so valuable or good for the soil as hard-wood dust, or even our native soft-wood dust from spruce, hemlock, &c. The reason is, because the pine is full of resin, which is almost water and rot proof. It will last quite a time and not decay, whereas the hard wood readily and rapidly decays, thus furnishing a small amount of manure to the soil.

Carrots Going to Seed.—In reply to a complaint by some one that his carrots went to seed the first year, a correspondent of the *Country Gentleman*, who was formerly a seed grower in England, says, that the best carrot seed will occasionally produce nothing but seed the first year is a fact. In 1865 a meeting was held in London, Eng., on the above subject, and attended by men who had made a speciality of raising carrot seed for fifty years, and the experience of these men was, that the purest strain of carrot seed would sometimes produce nothing but seed the first year, but they could give no reason why it should be so.

For the New England Farmer.

EARLY FRUITS AND VEGETABLES.

It is a fact that cannot be denied, that with many farmers too little attention is given to the culture of early fruits and vegetables. This is the result arrived at after extensive observation and considerable acquaintance with farmers. If they plant their usual extent of corn and potatoes; sow their ordinary breadth of oats and rye, and sometimes a piece of wheat; see that their mowings are in ample order, and make provision for a suitable supply of fall and winter fruit, they have done all that is necessary to satisfy their own and their families' future material wants, and to ensure a fair degree of temporal success,—but they do not seem to realize the advantage derived from the culture of the tender and delicate productions of the garden and orchard, for these are almost wholly vegetables. This is not the case with all farmers. There are those, even in the back country, and far from any market, who make it a matter of prime importance to provide themselves with an adequate amount of early fruits and vegetables. And this they do from a sense of duty as well as pleasure,—not that they will afford a large margin of pecuniary advantage, for they do not cultivate them for sale, so much as for use, though they receive more than their full value in the increased health and happiness of their families and friends. They know the luxury and advantage of a liberal supply of early fruits and vegetables and they take the necessary steps to secure them, and generally they are not disappointed.

While this is the course of some, there are others who, for want of thought or interest, seem utterly indifferent to the whole matter, and practically ignore it. In proof of this we have only to visit their farms in summer. Scarcely an early fruit tree can be found on their premises, and their garden is a mere apology for one. They may have some of the ordinary early potatoes and beans, in some convenient spot; perhaps a bed of beets and onions, a few hills of winter squashes, and a row or two of cabbages and turnips, to fill out the allotted space; of early vegetables there is not a solitary representative. Not that these farmers are idle or lazy; they are intensely active about the weightier matter of agriculture, but of the lighter and minor ones—though of equal importance—they have no just conception, or taste, and so deprive themselves and families of comforts which, by a little forethought and labor, they could richly and freely enjoy.

To show that I do not speak at random, I will briefly relate a conversation I recently had with a young man who came from the city to

spend his vacation on a farm in the country, during the last of July and the first of August, that he might enjoy the luxury of early fruit and fresh vegetables; but he has been greatly disappointed, for he said that with the exception of a few peas and berries, he might as well have boarded with the farmer in January; for not another early vegetable had he seen or tasted, and he should be obliged to return to the city without getting what he greatly desired, and what he had come into the country to obtain.

This was a severe criticism upon the farmer's system of living and husbandry; and is, doubtless, true of many intelligent, industrious and successful farmers; as this very season, after some of the earliest kinds of apples had come and gone, and some of the later kinds were in full maturity, there were those who occupied places that had been owned and kept in the same family for more than fifty years who had not, as late as the middle of August, seen or tasted any ripe fruit, when, by those who had attended to its culture, it had been a constant luxury for nearly six weeks.

Where one has but recently occupied or come into possession of a farm, there are good and sufficient reasons why he should not have an abundance of delicious fruit; but when one has been upon the same place for fifteen or twenty or more years, the lack of a supply of fruit, so essential to health and comfort, during the extreme heat of our summer season, is hardly excusable. B.

Massachusetts, 1870.

For the New England Farmer.

CLEARING PASTURES.

If a man is clearing up a new-land farm for a home, it is usually necessary to be expeditious, so that a crop may be realized as soon as possible, to pay for the labor and give a living to the laborers. To that end the forest is chopped down when in full leaf in June, and in the sultry days of early autumn, fire is set so it will run through the fallen timber. A good burn clears the land wonderfully and sometimes leaves but little for the pioneer to do before grain is sown or corn planted.

Now while this is a quick way to clear land, it is objectionable from the fact that a large quantity of rich soil of vegetable matter is burned, and the ashes left soon expend their strength. In a dry season, several inches in depth of the surface is consumed in common wooland, while in duffy or scurfy soil, composed of the leaves of the spruce, fir, cedar or pine, a foot in depth is burned, and I have seen muck consumed more than two feet deep. Such extreme cases may be rare, but usually such a sweeping fire destroys much vegetable matter, that would be valuable to crops.

Therefore, after sufficient land has been cleared for fields, it would be better to clear the land for pasture, without fire. The branches of the maple, birch, beech and elm decay in a few years, and if the bodies of the trees can be drawn away for fire-wood or other purposes, and grass seed sown upon the land, the cattle will keep down the sprouting wood, and turf will be formed, yielding abundance of feed. There are in all parts of the country small pastures cleared in this way that are estimated to yield from double to six times the feed that is grown upon land near by, that was severely burned.

The foregoing remarks refer particularly to the first clearing of land, but are equally applicable to the improvement of pastures grown up to cedars, elders, white birch, cherry, shrub oak or pine. Whatever may be the bushes that are growing in the pastures, they should be cut. Do not depend upon cattle or sheep to destroy the larger growth, as a man with a sharp axe and bush scythe can improve pastures more economically than grazing animals. Cut down the useless shrubbery, but be not anxious to have a great wide-spreading fire. If fire is used at all, let it be to consume snugly-built piles. Leave as much vegetable matter as convenient on the soil, as it is difficult to replace it if once removed. The wealth of the land is a rich soil, abounding in organic matter.

The crop desired in a pasture is grass; therefore sow as much seed upon the land as necessary to give a good turf, cover the seed by harrowing or by drawing a small evergreen tree over the ground. If there are small branches of trees left to rot, so that it is impracticable to use harrow or brush, then sow the seed and turn in the cattle. J.

KEEPING MILCH COWS.

We take the following from the *Country Gentleman*, and commend it to all keepers of milch cows, and especially butter makers. We believe that the use of grain in feeding milch cows is becoming excessive, causing garget and other prevalent diseases, and that the remedy is to be found in a better quality of hay. It was stated a few days since by a large butter dealer in Boston that not more than one-tenth of the butter in the market this season is a prime No. 1 article, owing to the poor feed caused by the drought. Grain will not supply the defect of poor feed. This was probably unavoidable this season, but an important lesson may be learned from it.

"Friend Sharpless gives us a nice picture of his cows in the *Country Gentleman* of Sept. 15; but the cost,—40 cents a day,—will that do? The amount for seven months is $84, far beyond the average income of cows, and, if we add the summer keeping, the best dairies will fall below it.

It is an axiom among our dairyman here, in southern Herkimer County, that much grain fed to stock will not pay—that is to keep it; fattening it is a different thing, and may pay or may not. Sometimes it does not, and generally not too much. For milch cows it does not pay,—so it is thought here.

There is one thing that will pay. It is the feeding of green, tender hay, cut green and young, and then from such hay—it may be said grass—butter is made equal to fall and summer butter—not equalling June butter. The quantity of milk is large in November and December, and again at calving time there is an excellent flow of milk, not quite so rich, perhaps, as grain would make it, but rich and copious; and it was brought without the great expense, the cost not being more than one half.

When summer opens, your cow is still strong, and will continue in that condition on good feed,—that is good pasture,—and when getting short, fed on *corn-stalks* provided for her, *which is but a continuation of the green pasture.* And when winter comes your cow will still be sound and strong,—not over fed, not over strained with grain, but what a cow should be—a quiet domestic animal, supporting the dairy, intended for milk, not to be driven too hard by the boys, or yoked as in Europe. Such a cow, a milk-giving mother needs but sufficient strength for her purpose, and that is not much in her quiet routine. She needs good treatment; that is the great point. She grows under it, but deteriorates with abuse, and that rapidly. Give her warm winter quarters, and plenty of water with her grass hay.

TWO PICTURES.

BY MARION DOUGLAS.

An old farm-house with meadows wide,
And sweet with clover on each side;
A bright-eyed boy, who looks from out
The door with woodbine wreathed about,
And wishes his one thought all day:
"Oh! if I could but fly away
From this dull spot, the world to see,
How happy, happy, happy,
How happy I should be!"

Amid the city's constant din,
A man, who round the world has been,
Who, 'mid the tumult and the throng,
Is thinking, toiling all day long:
"Oh! could I only tread once more
The field path to the farm house door,
The hill, green meadow could I see,
How happy, happy, happy,
How happy I should be!"

CARBOLIC PLANT PROTECTOR.—Our experiments with this article (referred to in our July No.) were continued for a period of several weeks, in order to test its efficacy as to the destruction of noxious worms. We found that for the large measure worm, which so often infest our city trees and grape vines, a decoction of the plant protector, sufficiently strong to kill or dislodge the worm itself, was strong enough to scorch and injure the leaves of the vines also. But for bark lice, and more tender worms or insects, it was a most beneficial agent. We think it especially useful as a *preventive* against future attacks of insects. If plants are syringed freely once or twice a week, the odor alone will repel insects, while there is no doubt the eggs of future progeny are destroyed also. Our first application to the grape vines destroyed the worms, but scorched the leaves and retarded the ripening of the fruit. The odor remained in the garden and on the ground for several weeks, and we never had an attack of worms of any description. We also discovered some caterpillars' nests, and a thorough soaking with the solution soon placed them all out of danger.—*New York Horticulturist.*

EXTRACTS AND REPLIES.

MUST SCALE OR SACCHAROMETER.

In an article on wine making in the Department Report on Agriculture for 1859, mention is made of an instrument used in Europe, invented by Dr. Gall, or used by him, to ascertain the amount of acids which grapes, &c., contain. Is any such thing in use in this country? If so, where can it be obtained, and at what cost?

What is the best manure for grape vines on sandy land? A SUBSCRIBER.

Williston, Vt., Oct. 13, 1870.

REMARKS.—The instrument referred to is called the "Oechsle's Must Scale." Mr. Hussman says that it is indispensable to the wine maker, and that it may be obtained in most of our large cities from prominent opticians. We do not know the cost.

Wood ashes, bone-dust, lime, gypsum, the refuse of the wine-press, soap-suds, &c., are recommended as fertilizers for the grape, and on sandy land, a dressing of clay or other heavy soil will prove valuable.

JERSEY BUTTER—TEST OF OXEN.

An hour upon the grounds of the Merrimac County Agricultural Society during the fair held this week, was only sufficient to get a glimpse of the good things of the County represented there, of which others have spoken.

Among the noticeable articles on exhibition, were the tubs and jars of butter. Anticipating the report of the Committee, we venture the remark that the butter from the dairy of Nathaniel Whi e suited our taste best. It was free from the *guilty* appearance of some other butter, though from a herd of pure or grade Jerseys. The butter had been made within a few days; was of a straw color, *sweet* and salted with less than one ounce of salt per pound, judging by the taste. How butter from sour cream can ever be sweet is beyond my comprehension, unless sour milk is sweet. I have seen sour milk drank and called very sweet. The juice of apples, so sour that no man would eat them, makes "sweet cider," and is as well entitled to be called sweeet, as butter from sour cream. Probably those who had butter in competition for premiums would have been of-

fended if they had been told by the judges that their butter was not sweet, when its origin (sour cream,) could have been declared by the sense of smell alone. Mr. White's dairywoman very modestly attributed the superior quality of the butter to the breed of cows—Jerseys; but a few moment's conversation convinced us that she, rather than the Jersey cows, was entitled to the credit. Were Mr. White obliged to change dairywoman we think it doubtful that the reputation of his Jersey cows would be sustained.

We happened to be upon the ground while they were trying to make their oxen pull a drag loaded with pig iron. Why they were doing it was more than I could discover. Big oxen and little oxen all had to pull the same load, or the crowd did not cheer. It could not have been to test the comparative strength of the oxen, for the drag was on uneven ground, requiring much more strength to move it in some places than in others. When on the summit of a little mound well grassed, it was easily moved. When in a hollow, four oxen were required to draw it out. Nothing was determined, so far as I could learn, but the patience of the ox beneath the tortures of the goad.

There were several addresses delivered during the brief time I was there, which drew crowds of attentive listeners. F.

Mast Yard, N. H., Oct. 7, 1870.

SELLING HAY AND STOCK TO PAY DEBTS.

I noticed in my last week's FARMER an inquiry about selling hay and stock to pay debts. Having been "through that mill" myself, I will relate my own experience for the benefit of the inquirer. In the first place, I would say that no one is more opposed to selling hay than myself, and yet I have done it to pay off debts. Where one is so badly in debt as not to be able to put his fences in sufficient order to keep his neighbor's cattle from feeding his mowing, it is as bad for the land as selling hay. In the year 1860, I bought a farm of C. O. Perkins, Esq., containing two hundred acres. I paid a few hundred dollars down to bind the bargain, and had sixteen years to pay the balance in. In 1863 I sold all my stock and hay at auction and paid for the farm. But where a man has other debts beside that for the purchase money of the farm, he will find that as soon as he sells, Tom, Dick and Harry will demand payment, and he may be worse off than he was before. Thus, circumstances alter cases, and every one must act accordingly. Hoping that if your correspondent sells off his stock and hay to wipe out his indebtedness, he will have as good luck as I did, I remain the well-wisher of every farmer who is struggling under a heavy load of "annual interest."

MICHAEL MCNERNEY.

Becket, Mass., Oct. 17, 1870.

CONSTRUCTING DRAINS.

Much of what will in future be our most valuable grass lands are at present lying in a comparatively worthless state for want of suitable drainage to render them available. On a soil suitably underdrained, or of itself dry, irrigation will produce great results; while on land of itself wet, it is but adding fuel to the fire. Yet we sometimes see fields under irrigation which were too wet before to produce enough to compensate for the labor of harvest. Why is this?

Inasmuch as others have set forth their method of constructing drains, I will cast in my mite on this subject, which is becoming more generally and better understood each year. In sections where stone are scarce, tile may be resorted to, and will form a durable drain; but where stones are plenty I prefer using them, thereby "killing two birds with one stone." Brush, boards, poles, &c., being perishable materials, we prefer stone to any of these. We know of stone drains laid twenty years ago which are still as good as new. They were constructed after this simple manner. Commence the ditch so high above where the water appears on the surface that it will enter at the bottom. Open, at least, three feet in depth to two feet wide on the top; then fill by throwing in small stone promiscuously to within fifteen inches of the surface, and if flat stone can be obtained, cover with these, and a little straw or leaves to keep the loose dirt from sifting in between the stones until it becomes settled. Cover all nicely, and a durable drain is constructed. C. B. FISH.

Brookfield, Vt., Oct. 14, 1870.

PIPES FOR AQUEDUCTS.

In deciding what kind of pipe to use for aqueducts many things must be taken into account. Having occasion to lay one some time since, I was sorely perplexed to know what to use.

An old lead pipe which was laid more than thirty years before, had wasted away until it was so thin as to be worthless. Indeed, the part that was in the well had entirely disappeared. This confirmed my impression that lead pipe might be poisonous, and induced me to look for a substitute.

I had a very small supply of water, though it was lasting, and as it was to come to both house and barn, and the fall was great, it must be conveyed without waste. These considerations led me to discard wood, as I feared water might escape at the connection, under so much pressure.

Several patent pipes passed in review, but on inquiry I found they had not proved satisfactory. At length I concluded to try either "Livermore's Continuous Cement," or the tin-lined pipe, manufactured at New York. Both I supposed harmless, but fearing the cement might burst under the pressure, or be so porous that water would work through it, the tin-lined pipe was used.

I have since noticed that Dr. Nichols, of the *Journal of Chemistry*, asserts that wherever this kind of pipe is joined by soldering, or there is any defect in the tin lining, it will waste away rapidly under strong galvanic action, and that in some instances holes have been entirely eaten through the pipe in a period of six months. He regards it as even more injurious than lead. Concerning these objections I know nothing, but if I were to lay another should connect the ends by what plumbers call a wiped joint. In my own case the corrosion may have been going on more slowly. I can only say it has been in use three years and for aught I know is sound.

The Livermore pipe, where it has been properly laid, on a good hard bottom, below frost, and the water has not been let on too soon, has, so far as I know, been entirely satisfactory. H.

New Hampshire, 1870.

HOOVE IN CATTLE.

A mode of cure from the *Southern Cultivator*, in the February number of the Monthly FARMER, brings to mind a remedy suggested by Dr. Allen, (well known in his day in the western part of Massachusetts,) which, it is presumed, must be much less disagreeable as well as less distressing to the suffering animal.

Some forty years ago my father, seeing a bloated ox released from the yoke in front of his office, offered to treat the case, as no person present had any means of cure to propose besides the barbarous and ineffectual methods then usually resorted to. Acting upon the suggestion of Dr. Allen, he pulverized a lump of pearlash the size of a hen's egg, dissolved in water and adminis-

tered it from a junk bottle. Business then called him away for a short time, and on his return he found that the ox had been re-yoked, and the team driven on with its load. A little laudanum could have been added to the solution of pearlash if it had been at hand.

This alkali (pearlash) stopped the fermentation of the clover in the rumen (stomach) of the ox; and from the immediate relief afforded, it may be inferred that the gas generated by the fermentation was carbonic acid, and that it immediately combined with the alkali of the solution by which its volume was reduced to nothing, virtually, as this combination would not increase the volume of the solution in an appreciable degree.

While pen is in hand let me add that a farmer on line of the Western railroad (Worcester to West Stockbridge,) when that road was building, had a sheep so badly poisoned that it was given up as lost. A civil engineer, boarding with the farmer, knowing that many poisons were acids, proposed to make an experiment with an alkali. The proposition was immediately acceded to, and a dose of saleratus was given, with immediate relief and complete cure. F. J. C.

Springfield, Mass., Oct. 12, 1870.

TO CLEANSE BARRELS—WINE FILTER.

How can I cleanse old cider barrels so that they will be perfectly sweet? How shall I make a filter for elderberry or tomato wine; and how coarse should be the gravel used. SUBSCRIBER.

Heath, Mass., Oct., 1870.

REMARKS.—Musty barrels cannot probably be made "perfectly sweet" by any process. Put in a pint of unslacked lime and a common trace chain, with a string attached for pulling it out, then add three or four gallons of hot water, and roll and shake the barrel about until the mould is worn off, then rinse well, and it will probably be considerably sweetened.

We find the following directions for making "a filter," but whether it is suitable for the purposes of wine-making we do not know.

Take a flower-pot, or any other vase having a hole in the bottom, fill the bottom with large round pebbles, cover these with small pebbles, then with coarse sand or fine gravel, and finally with four inches of pounded charcoal. The charcoal may be placed in a bag and broken with a mallet or hammer, then sifted and the finest dust rejected. Lay a clean flannel over the charcoal, held down by stones on the corners.

GAME LAWS, AND QUOTATIONS OF PARTRIDGES.

I would like to inquire through your valuable paper why birds called partridges are quoted in the price current? As I understand the Bird-Law no one can take, kill or destroy any of the so-called birds before the first day of October in each year, without being liable to a fine of twenty-five dollars.

Shrewsbury, Vt., Oct. 3, 1870. A READER.

REMARKS.—We understand that our marketmen are subject to a similar law against selling. We commenced our quotations Sept. 24, at which time they were on sale at this market.

STEAMING FEED FOR COWS AND HORSES.

I wish to ask you, or some of your contributors, for information in regard to the increased value of feed for cows and horses by the use of steam to cook it with; also, the best and cheapest apparatus for steaming the feed for, say, fifteen cows and four horses; also, the best grain or meal for milk and beef combined? H. B. CANFIELD.

Stanstead, P. Q., Oct. 20, 1870.

REMARKS.—The economy of cooking feed for stock has been considerably discussed, both in this country and in England, but our impression is that this plan of preparing food is not gaining favor rapidly with practical feeders. We shall be pleased to publish the experience of any who have tried the experiment of steaming or cooking in any way, cattle or horse fodder.

DOG WITH SORE EARS.

What is the matter with my dog, a large one not yet two years old, whose ears are sore, and he is continually scratching them until they bleed? He has been troubled thus some six months. I should say he had got the itch. Is there any such thing that dogs have? What will cure him?

Ashfield, Mass., Oct., 1870. READER.

REMARKS.—Why should dogs be exempt from the ills to which other animals are subject? Try an ointment of lard and sulphur. For mange on dogs, Frank Forrester's Dog-book gives as a cure, "one ounce of salts for a dog of moderate size. Then rub well with one quart of train or tanner's oil, a wine glass of spirits of turpentine; sulphur sufficient to let it just run off a stick,—all well mixed."

WATER-PROOF CEMENT.

I would like to ask through the FARMER for a receipt for water-proof cement. Any one that can give it will greatly oblige B. F. G.

Marlboro', Mass., Oct., 1870.

REMARKS.—Will not hydraulic cement answer? In Haswell's Engineers' and Mechanics' Pocket Book the following is given for cisterns and water casks:—Melted glue, 8 parts; linseed oil, 4 parts; boiled into a varnish with litharge. He says this cement hardens in about 48 hours, and renders the joints of wood cisterns and casks air and water tight. Who knows of a better water-proof cement?

WEANING LAMBS.

I believe it is the common practice for persons having lambs that they intend to winter, to allow them to run with the ewes without weaning them; thus keeping the ewes poor, without much benefit to the lambs. Perhaps it is not generally known how easily they may be weaned. All you have to do is to separate them about thirty-six hours, and the work is done. There is no patent on this receipt, and all who have lambs are advised to try it.

Wilmington, Vt., Oct., 1870. B.

WATER-PROOF BOOTS.

To have dry feet, and durable and water-proof boots during winter, I set them in a shallow pan or dish, in which is just enough boiled linsed oil to cover the bottoms without touching the upper leather, and let them set there two days. If the oil gets into the upper leather, it makes them hard. I then put on the boots, wet the uppers, and let them dry on my feet, which gives me a perfect and easy fit. I then take tar, wa

it and rub in all I can, holding the boots to the fire the same as I would do while greasing them. Try this and you will not be troubled with wet feet or with hard or stiff uppers; it also preserves the leather and the thread, and I am sure that all who are much exposed to slops and snows will be greatly benefited by trying the experiment on a single pair of boots. OLD SUBSCRIBER.

Heath, Mass., Oct., 1870.

TO SWEETEN FROWY BUTTER FIRKINS.

To a correspondent who asks how to extract the taste of the wood from butter firkins, I would say that sweet or sour milk will do the work much better than salt or saltpetre. There is nothing which absorbs smell or taste so quickly as milk, cream or butter; and there is no agent so desirable to use in extracting the wooden taste from all new utensils. A churn can have the taste of wood wholly taken out by it. S. O. J.

A TRIP IN RUTLAND COUNTY, VT.

Rutland Village.

While waiting at the railroad depot in Rutland, Vt., for a train to Fair Haven, we had an opportunity, a few weeks since, of contrasting that place as we had previously seen it, and as it now is. In 1831 we spent a few weeks in the village; and our impression on a subsequent visit in 1845 was that population and business had decreased during the intervening period, and that it was then one of the dullest and least stirring towns in the State,—everything indicating a standstill or retrograde.

Ever since that time our recollection of Rutland has been associated with that of Irving's Sleepy Hollow. But this association is now broken. While the bugle blast of the brave Antony Van Corlear was unheeded alike in Petticoat Lane and Sleepy Hollow, the first locomotive whistle that stirred the air of Rutland must have brought every man to his feet. For, now, in place of the quiet, rural town of perhaps 2700 inhabitants, we find a commercial city of ten thousand wide awake people, with new streets stretching out, and new buildings rising up, in all directions.

West Rutland Marble Works.

In many places in Rutland as well as in Middlebury, Brandon and other towns through which we had just passed, the ground is white with blocks, slabs, and chips of marble, showing that the Green Mountains were not made for the sole purpose of holding the world together.

At West Rutland we visited several "marble works," at one of which we understood that some 200 men were employed in mining and fitting the product for market. Here, at a depth of some 150 feet, steam engines were aiding the workmen in cutting blocks from the solid mass of geological loaf sugar that was deposited there, for ought we know, "in the beginning." Other steam engines were pulling away at huge metallic ropes which raised the blocks from their beds below to the bright sunshine above, where once more steam "shaketh the saw" that shapes the marble to the various forms required for use and ornament. There is a marked difference in the tiers or layers of which these beds are composed—as many as eighteen being counted in some mines,—which are characterized as white, gray, mottled, striped, saccharoidal, laminated, friable, compact, &c. The market demand, at present, is mainly for the white.

Fair Haven Slate Works.

Passing on to Fair Haven we found slate works instead of marble. Near the station is a mill or factory where slate is planed to desired thickness and then by narrow, or "key-hole" saws, cut into elegant forms for mantel-pieces, jambs, and other interior decorations, as well as split thin for roofing.

This is the centre of the slate region, and we understood that Vermont slate was rapidly becoming popular, not only in the cities and villages of our own county, but that builders in England, to whom specimens had been sent some years ago, were so well pleased with it that several large orders have been received from there, and a thousand "squares" have already been shipped to London, and fifty to Bangor, Wales, the centre of the Welsh Slate region.

Farm of John Balis and Son, Benson.

From Fair Haven we passed over a good farming country, with a clay soil, to Benson, a distance of some ten miles, by stage. Benson lies on Lake Champlain and is consequently one of the Western towns of the county. We spent several days in the eastern part of the town, with John Balis, Esq., and Son, who own and carry on a farm of 1400 acres, a large portion of which is in view from the elevation on which the homestead buildings stand. We noticed that the elevations in this township trend generally north and south, consequently the east and west roads are more hilly than those which run north and south. Mr. Balis has faith not only in farming, but in farming *in Vermont;* and as his neighbors have successively caught the Western, or other migratory fevers, and offered their farms for sale, he has bought them out, one after another, until his present farm embraces territory on which ten families formerly had independent homes. He has been led into this territorial expansion by the good trades that have thus been offered; but now, wishing to live easier, he would dispose of a part of the estate, and has offered to sell to the directors of the Vermont Horse Stock Company 1000 acres, with several buildings thereon, at $30 per acre, which, on account of its distance from railroad facilities, may not be purchased by them. An offer of land in Shelburne, without buildings, at $70 per acre, has also been made to the company. With a railroad through Benson, of which there is considerable talk, Mr. B. believes that the difference in price between Benson and Shelburne land would at once be greatly equalized. The real value of the land for ordinary farm purposes, however, would not be materially affected by the proposed

road, though its nominal value would be. As some account of Mr. Balis's farm, stock and general management, was published last year in the FARMER, it is less necessary to enter into details at this time. As we rode over his fields, which are surrounded by excellent fences, we were reminded of the estates of the English noblemen, of which we have read descriptions. And we do not see why the possession of these broad acres, which had been acquired from the proceeds of farming, and by one who has "worked his passage," thus far in life, was not as good evidence of "nobility" as are the estates of English land-holders, whose title descends from father to son. At any rate we think it must be regarded as an exception to the general rule that farming is unprofitable in New England.

Farm and Stock of Rollin Gleason and Father, Benson.

While looking about in this neighborhood we saw a herd of Devon cattle on one farm, that attracted our attention. On inquiry we were told that the stock and farm belonged to Rollin Gleason, Esq., and his father,—the latter having resigned the management mostly to his son; and were told that we should see some fancy stock, worth looking at, by calling on them. This we subsequently took occasion to do, when a closer examination of their Devons fully confirmed the favorable impressions they had made when seen at a distance. The Messrs. Gleason have several herd book animals of great excellence, and others that will appear in the forthcoming volume.

Their stock bull, "Helena's Huron, 6th," which received first premium at New York State Fair, 1869, as a bull calf, was by Queen Ann's Huron (320,) by Huron (604,) by Exeter (198;) dam Helena 16th (148,) by Omar Pasha (513) imported by C. S. Wainwright, Rhinebeck, N. Y.

Also, with W. R. Sanford, of Orwell, they own "Meriden" (67,) sire Cornet (162,) dam Fairy (696,) both the latter imported by Linsley Brothers, West Meriden, Conn.

A fine cow "Coles Helena 4th," sire Iroquois, bred by Hon. E. G. Faile, Cayuga, N. Y., 2d sire Cayuga (287;) dam Nemophilla, by Omar Pasha, (473) 2d dam Norina (1521) by May boy (71.) This cow had a fine bull calf by her side, a few weeks old, by Queen Ann's Huron (320,) the style of which we think must please the admirers of Devon stock.

They have other stock descended from W. R. Sanford's old imported Beauty (504). Their whole stock are Devons, and the character and style of their herd may be inferred from the few animals thus particularly noticed.

But these Devon cattle were not the only "fancy" stock we found on this farm. Here were the lusty Cotswold sheep and lambs from the flock of T. L. Hart, of West Cornwall, Conn.; as well as Leicesters and Oxfords from Huntington, Can., but name of breeder not recollected. They were in fine order.

But while trying the coarse wools and mutton breeds, the old-fashioned Merinos are not abandoned nor neglected, as a flock of 150 head are still kept on this farm of some 200 acres. These sheep, from the Hammond and Sanford stock, were at pasture, and we did not see them.

A Live Three-thousand-dollar Buck.

We did see, however, at the barn, a venerable representative of one of the "best families" of the American Merino. On another page we present a truthful likeness of this animal, for a half interest in which fifteen hundred dollars were once refused! Look at the picture. Could an artist personify Meditation more successfully, to say nothing of those "points" on which the fancy of breeders may have been somewhat unsettled of late? After giving his visitors a hasty look, his buckship nearly closed his eyes, and apparently resumed at once the broken thread of his cogitations. But what the drift of his meditations were, we will leave for solution by those who have more time to study his physiognomy in the picture, than we had when we saw him in the body. Possibly he was thinking,—as others have had occasion to think,—of the instability of earthly glory and popular applause; or of the vanity of praise and admiration generally; or of friends more abundant in prosperity than in adversity!

But cattle and sheep were not the only "fancy" stock on the Gleason farm. And if we were not making our story longer than our visit, or in danger of being "too familiar on short acquaintance," we should like to say something about a fine Blackhawk mare for single driving; of pure bred Chester White pigs, from F. Stinson, a careful breeder of Brandon, Vt.; of a splendid stock of Light Brahma fowls, from J. S. Ives, of Salem, Mass., which at the time we stood in the yard were just going to roost, in a neatly fitted up poultry house, with the low roosts which befit birds which carry the avoirdupois of poultry that was under their feathers; but this would lead us to say something of the substantial and convenient character of the other buildings, of the nice garden, neat wood-pile, door-yard, and of the orderly condition of everything about the premises of these "fancy" farmers; and we should want to notice some 200 bushels of "Bresee's Peerless," or No. 6 potatoes, some 300 of the Early Rose, the corn crops, and the like,—and where should we stop, if not right here, and just now?

Marbleized Slate.

During our visit in Benson, our young friend, John Balis, Jr., made up a party for a day's excursion. The two-horse family carriage was well filled with gentlemen and ladies, including Francis Pratt and family—(Pratt & Whitney, machinests,) Hartford, Conn., and Nathaniel M. Pratt, of Philadelphia, with a vacant seat for ourself, and the essentials for a picnic, which was enjoyed on

the shore of Bombazine Lake, in Hubbardton. We also passed "Screw-driver," and one or two other smaller lakes or ponds, whose names we have forgotten. The residence of Albert Bresee, of Hubbardton, the originator of the Early Rose and other popular varieties of potatoes, was also passed on our way.

In Castleton we examined a large establishment for "marbleizing" or enamelling slate for table-tops, mantel-pieces, jambs, &c. The nature of this stone is such that the materials used for glazing adhere to it in the several processes of baking to which it is exposed, as does the enamel to the clay of which fine earthen ware is made. We saw specimens of the work of great beauty and high finish; exceeding in these respects the most costly marble, and we understood that it could be afforded at one-fourth the price of marble. Any shade or variety of coloring can be given. Without enamelling, the slate looks very rich, when polished, and is largely sold with this finish. Roofing slates are also manufactured to a large extent in this place.

Slate Pencils.

In Hubbardton we visited a slate pencil factory. Here the steam engine was whirling the saws, shoving the planes, and operating the other machinery necessary to convert a mountain of rock into pencils for the boys and girls to cypher with! Men and women, girls and boys, were here at work, as busy as bees, and all were breathing an air so filled with the dust of this "clay slate formation of western Vermont," that we should think but a few days would be required to change the lungs, if not the *heart*, of every workman into stone. After being mined, the stone is sawed and split and planed into pieces about six inches long, four or five wide and of a thickness required by the diameter of the pencil. These pieces are very rapidly put through one machine which cuts grooves half the thickness of the slate; they are then turned over, when corresponding grooves are cut on the opposite side, and of the same depth, and the plate of stone becomes a row of well formed pencils, ready to be put up by the gross in pasteboard boxes, which are then packed in wooden boxes for transportation. Notwithstanding the large force employed, we understood that orders were ahead of production. The waste of material is large—one of our party estimating it at 90 per cent. We were told that this debris had been used for the manufacture of alum, but to what extent and with what success we are not informed.

The country through which we passed this day was "diversified," and exceedingly interesting. Hills and rocks of a most rugged character marked part of our way, while in other places we passed fine farming sections. But as we were on the move nearly all day, we had no opportunity for anything more than the most casual observation of the farming interests of this section, but we thought the general aspect was that of prosperity and progress.

MASSACHUSETTS AGRICULTURAL COLLEGE.—The conductors of the *Amherst Record* have assigned a portion of the columns of that paper to matters pertaining to the Agricultural College, to be conducted by the Senior Class, of which W. H. Bowker, Wm. Wheeler, S. H. Richmond, L. B. Caswell, G. W. Woolson, and W. C. Ware are named as Editors. In the issue of the *Record* of October 26, the College Department is well filled; most of the space being occupied by an Introductory, an article on the Durfee Plant-House, and one on Drainage.

To sustain such a department in a weekly paper, creditably to the Senior Class and to the institution to which they belong, will require an amount of labor which we fear will be hardly consistent with a thorough prosecution of their studies. We agree, however, fully with the editors in the opinion that if this department is well sustained it will accomplish one at least of the objects which they propose, that of placing "the college in its true light before the people, and thus to render it more useful to the agricultural community."

FALL PLOUGHING AND MANURING.

We are more and more convinced of the utility of fall ploughing. At this season the plough may with more safety be put in deeply, and a portion of the subsoil be brought to the surface. The rain and frost, and air and sunshine, will pulverize it, and prepare it to be mixed with the surface soil in the spring by the plough, the harrow and the cultivator, and to yield its nutritive elements to the growing plants.

When a subsoil is brought up in the spring by the plough, it takes nearly the whole season for it to become fine and mellow, and to be of much value to the growing crops. It is not enough that a subsoil be made fine by mechanical means. It needs the ripening, perhaps the chemical influence of light and air, to change and render more soluble the salts it contains.

Many farmers object to ploughing up the subsoil. They say it is of no value to the crop planted upon it,—that it is often positively injurious. When a heavy subsoil is thrown up in the late spring, and immediately sowed or planted, this is doubtless true, and it is because these same farmers confine their ploughing to the spring, that they have become prejudiced against deep ploughing. If they had allowed the winter to act upon the subsoil, they would have found the following season, not only a deeper tilth, but a mellow soil capable of mixing with the manure, and yield-

ing nutriment to the crops. They would have a deeper soil for the roots to work in, which, in a season like the past, is a matter of vital importance. We need not only to plough deeper, but to plant deeper as a safeguard against our frequent droughts. To be able to do this, we must have a deeper soil.

An observing Irishman on digging our potatoes in a dry soil, remarked, "they are so deep in the ground that they do not appear to have suffered from the drought." The soil was in good condition, and had been ploughed deeply for some years, when the potatoes were planted; furrows were made with the same plough with which the ground had been ploughed. The seed was put at the bottom of the furrow, and a handful of ashes and bone meal was thrown upon each piece. At the first hoeing the furrows were filled level; at the second, the potatoes were slightly hilled. They did not appear to have suffered from the drought, but were well grown and smooth.

Every one who has observed the superiority of the wheat crop put in two or three inches, by the drill, over broadcast sowing, and of corn and potatoes put in a furrow, and well covered, over the same crops where the seed was dropped on the surface, and slightly covered, would expect just such a result. In a wet soil this cannot easily be done; but then a wet soil should never be used for wheat or corn, but should be used for grass or oats, or for crops that may be planted later in the season, after it has become dry. In a well drained soil the ground may be worked as deep as we need, and the seed put in early, as deep as necessary.

Even in a drained soil, fall ploughing is of great value. In such a soil, the harrow or cultivator may often take the place of the plough in the spring; and thus much labor be saved, especially in sowing the small grains and grass seeds.

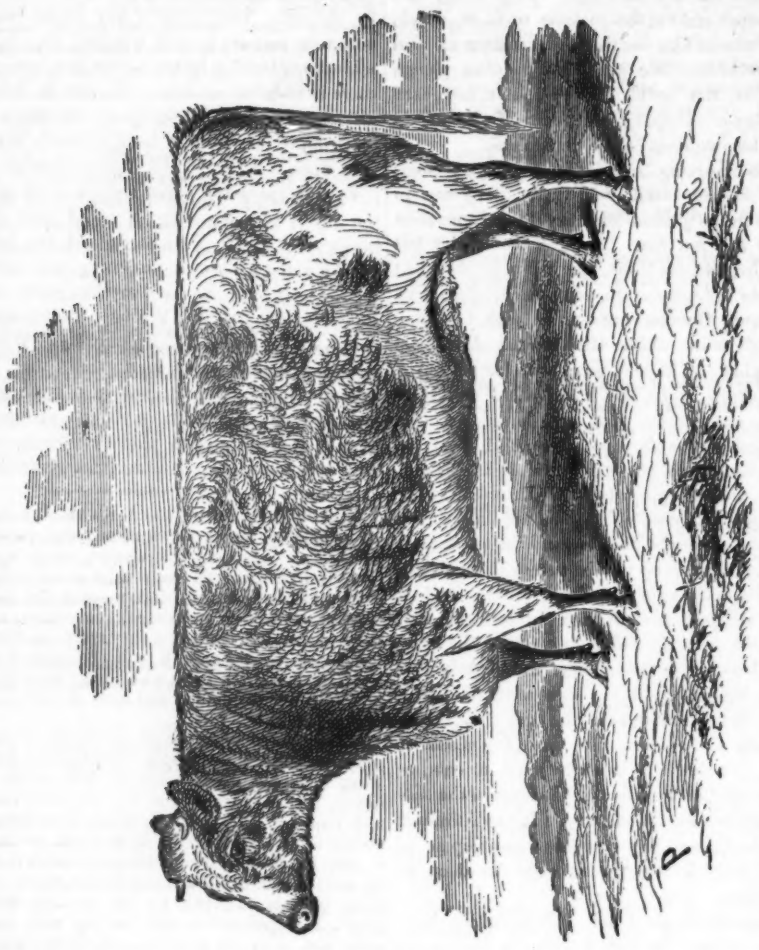
In ploughing stubble land in the fall, green or uncomposted manure may be spread on the surface and ploughed in. In this case the land should be ploughed in the spring, to bring up near the surface and mix the manure more thoroughly with the soil. It will be crumbled by the frost; will have lost its adhesiveness and mix readily with the soil; or it may be spread upon the surface immediately after the fall ploughing, and covered with the harrow. The weather will then act upon it, and what is leached out of it will be absorbed by the soil. Very little if any fermentation occurs in manure in cold weather, especially when spread in thin layers, and on level ground there is little or no loss. Manure in heaps will heat and give off its gases, and there is often more loss when it is deposited in heaps than when it is spread and slightly covered.

By thus spreading green manure in the fall, the labor of composting is saved, and the spring work greatly facilitated; and the land will be found mellow in the spring and ready for the seed some days earlier than when this course is not pursued. We have heard some good farmers object to fall ploughing. When the soil is a thin sandy loam, there may be less advantage from it; but in a good stiff soil, which it is desirable to deepen and prepare to seed down or to plant with corn, we cannot too strongly recommend this treatment.

Fix up for Winter.—A spare day can be profitably spent in repairing the stables and barns. Much feed is wasted every winter, by having barns and stables so open that every chilling blast of wind reaches the animals sheltered. Young stock, especially, are very sensitive to cold, and they must be sheltered, or their growth will be retarded. Aside from this, a farm with snug, neat outbuildings, looks better and adds to the value of the farm.

Make your poultry houses as warm as you possibly can, with proper ventilation; and when eggs get up to forty or fifty cents a dozen, they will repay you for all your care and expense. If possible, place their house on the south side of the barn or sheds, so that it will be protected as much as possible from the cold, bleak north and northwest wind. A good plan is to plank up the outside with plank, and upon the inside nail up with any odds and ends of boards, and fill the space with sawdust, shavings, mortar, or in fact anything that will keep out the wind. Keep everything thoroughly clean about poultry.—*Kansas Farmer.*

Blind Staggers in Pigs.—The question is asked "What will cure hogs that are taken with blindness and that go around in circles for a time and then die?" The disease is doubtless the blind staggers. Having had much to do in the raising of swine and the fattening of pork, I have ascertained, to my satisfaction, that too high feeding is the cause of the disease. As a preventive, withhold their food for a day or two and feed them with sulphur and charcoal. Also bleed them a little in the ear.—*Joel Draper, in Rural New Yorker.*



SHORT-HORNED HEIFER "LUCY,"

BRED AND OWNED BY J. A. HARWOOD, ESQ., LITTLETON, MASS.

An illustration of Roan Prince, the sire of this beautiful heifer, was given in the FARMER in 1867, (Monthly, page 444,) and we had the pleasure this fall of seeing him at the State Fair of Vermont at Burlington, where he was exhibited with the herd of twenty-three Short-horns owned by G. L. Reynolds, of Burlington, who had purchased him of Mr. Harwood.

The above cut of one of his descendants was engraved for the last Report of the Secretary of the Massachusetts State Board of Agriculture, forming the frontispiece of that volume, and was drawn from life.

This heifer "Lucy," received the first prize of the Middlesex County, Massachusetts, Agricultural Society, as the best heifer under three years old. We copy from the Report the following description and pedigree:—

"Lucy," a roan heifer, was calved May 10, 1868; got by "Roan Prince," 6,370, out of "Flirt," by "Marmion," 1843,—"Lady Sale Ninth," by "Comet," 3,772,—"Lady Sale

Sixth," by "Red Knight," 890,—"Lady Sale Third," by imported "Duke of Cambridge," 1,034 (5,941.) — "Lady Sale Second," by "Earl of Chatham," (10,176.)—"Lady Sale," by "General Sale," (8 099,)—"Clara," by "Napier," (1,238.)—"Maid of Orleans," by "Mameluke," (2,258,)—"Helena," by "Waterloo," (2,816.)—"Moss Rose," by "Baron"' (58,)—"Angelina," by "Phenomenon," (491.) — "Anne Boleyn," by "Favorite," (252,)—"Princess," by "Favorite," (252,) — "Brighteyes," by "Favorite," (252,) — "Beauty," by "Masterman's," (273,) — "Tripes," by the Studley bull, (621.)

VENTILATION OF BEES IN WINTER.

One of the principal causes of loss in the culture of bees is the want of a proper ventilation of the hive in winter. In the first place, bees are usually confined to a space altogether too small. That is, they do not need much room for placing their combs and performing their work; but they do need wider and more ample surroundings. In their natural condition in a hollow tree, the actual space they occupy may not be larger than one or two cubic feet, while the space above and below the mmay be several feet. In this case, the moisture escaping from the bees finds ample room to pass off, without becoming condensed and *falling back upon them*, as it often does in most of our artificial hives. When this takes place, even in only a slight degree, it becomes fatal to the family. The cold water wets and chills them so that they will not move to feed; mould soon ensues, and is extended through the whole mass of bees, and they die. Formerly we lost swarms every winter in this way.

An upward ventilation is objectionable, because it carries off the heat which is indispensable to the bees, and a side ventilation is found difficult to secure. What is needed is to find some mode of retaining the heat, and at the same time allow the moisture to escape so as not to return in a condensed form upon the bees. These points are pretty well secured in the Torrey hive, but not perfectly.

It is stated by Mr. J. H. Thomas, of Brooklyn, Ontario, N. Y., that these essentials may be secured in the following manner:—

"Cover all upward ventilating passages or openings, with some warm material that will absorb the moisture, but retain heat. Thick flannel or woolen cloth, an old bag, or quilts made for the purpose, will answer. Hence, if the top coverings of the hive are removed entirely, and a frame covered with wire cloth or strong linen put on instead, and over this some warm material, the moisture would entirely escape, leaving the bees and combs dry, while all the heat would be retained."

This would be easily done, and it seems to us would prove effectual, if the covering used were coarse woollen, so that the escaping vapor would readily pass through it into the open air. If striking on a surface as firm and smooth as stout linen, we should think it would condense there and fall again.

Another error is found in most hives. The bottom board comes too near the combs. The castings of the swarm accumulate there and sometimes becoming moist, form a mass of filth which must be highly offensive to such neat and orderly creatures as bees. The space below the comb should be two or three feet instead of as many inches, as is often the case.

PREMIUMS FOR FOREST TREES.

The Massachusetts Society for promoting Agriculture has awarded to Major Ben: Perley Poore of Indian Hill Farm, near Newburyport, the premium of *one thousand dollars*, which it off red in 1858 for the best plantation of forest trees, planted before 1860 and growing in 1870. The first premium for forest trees offered on this continent was by the Massachusetts Society for Promoting Agriculture, in 1797—a gold medal worth two hundred dollars. It was awarded to Col. Robert Dodge, of Hamilton, who was Major Poore's grandfather, on the mother's side, and this prompted the Major to compete for the premium last offered by the same society.—*Daily Paper.*

REMARKS.—Egypt and some other countries in the old world are treeless, and the climate and the people suffer much in consequence thereof. But we do not share the fears that have often been expressed of danger that a like calamity will occur to New England. We have had to fight the encroachments of the forest on cultivated land adjoining strips of wood, and on pastures and mowing lots, too much to apprehend a failure of bushes or trees in New England. We have also seen too many of our hill farms abandoned to a thick, spontaneous growth of soft and hard wood, to think there is any great need of special encouragement of tree planting among us. We know of one school district in which there were boys and girls enough to fill an ordinary country school house when we were young, in which at the present time there is not a single family,—the whole territory being devoted to pasturage and the growth of forest trees.

—A farmer in Boon county, Mo., says his oat ground ploughed in the fall produced one-third more than that ploughed in the spring.

For the New England Farmer.

VARIETIES OF CORN.

HON. S. BROWN, ED. OF NEW ENGLAND FARMER:—While we were at the late agricultural fair, Hillsboro' Bridge, you spoke of husking some large corn a few days since, saying many of the ears of which were twelve inches long. I remarked that I had grown corn this year, many of the ears being fifteen inches in length. From the "twinkle of your eyes" when I made the statement, I inferred that you thought I was "speaking unadvisedly."

To convince you that I did not overstate, I forward with this an ear of said length. A few days ago I plucked an ear measuring *plump* 17 inches, while lying in an outer room. Some one took the liberty of snapping off about four inches, and the broken portion was not to be found, thus missing the chance of sending it to you.

Originally, this variety was the Brown or King Philip corn. Over twenty years ago, seed was carried to New Jersey for re-planting, where the corn was found missing at the first hoeing. It has been planted there annually as a field crop ever since, and has attained the large growth and late maturing habits of the New Jersey corn. Last winter a farmer in that State sent me, per mail, a splendid ear measuring 14 inches. About the 20th of last May I planted a part of the seed. It grew from nine to ten feet high, and was harvested a few days since. Very few ears were ripe enough for good seed. I forward a portion of the ear received from New Jersey, from which you will be satisfied it is a lineal descendant of the once famous Brown corn of Long Island, Lake Winnipiseogee.

I also forward an ear of corn grown from B. F Johnson's "Hundred Days Dent Corn." Mr. J. forwarded me a few ears last winter. He has for some years been carefully selecting the best and earliest ripening ears for seed, ripening, in Champagne County, in Illinois, in 100 days from planting the seed. Some of the stalks I grew the past season were eleven feet high, and six and a half feet to the top of some of the ears. The ears of some of mine were longer and larger than the ones he sent me. In ordinary seasons, say like that of 1868, it would have scarcely got into the milk when we had a severe frost, 17th of September.

From the above experiments it will be seen that there is nothing to be gained by our farmers obtaining seed corn very far south of their place of residence.

I also send an ear of the variety grown on my farm. It speaks for itself, though it is not so large a variety as is grown by many of our farmers whose farms are on our hills. The frost holds off much longer on the hill farms than on those in our valleys, as it does on mine.

P. S.—I also forward some twenty or more pounds of the "Grafton Mineral Fertilizer," with a circular, signed by numerous farmers and others, testifying to its great value as a fertilizing or manurial agent. Yours truly,

LEVI BARTLETT.

Warner, N. H., Oct. 7, 1870.

REMARKS.—We are obliged to friend BARTLETT for his kind attentions in sending us samples of corn and the "Grafton Mineral Fertilizer." The corn is very fine, and shows what New Hampshire can do, even in a drought. From statements made to us upon the most reliable authority, we should think the fertilizer alluded to would prove of vast benefit to the New England States at least. We understand that the quantity is unlimited, is accessible, easily quarried and not far from railroad communication. We are informed by those who tested it on many crops last summer, that it had a wonderful influence in promoting their growth and in perfecting seed. If permitted to plant again, we hope to test it in various ways.

For the New England Farmer.

"GILT-EDGED BUTTER."

This term has been lately applied to butter of a fine nutty flavor and a firm consistency; but very little of it is ever seen in the markets of our cities, for the manufacturers of such butter usually procure regular customers, who take it at a price much above the market. It has been said by good judges that not one tub in ten of strictly good butter is ever found among the wholesale dealers. Why is this so? This question is very pertinent to all butter makers, and they should endeavor to answer it.

The manufacture of cheese has greatly improved of late years. The factory system has produced great skill in that branch of the dairy; but butter is made principally by owners of dairies, and there is little "system" pertaining to it. Butter making is more difficult than cheese making, because it is subject to so many varying influences—temperature, churning, salting and working are all to be considered, and are very important details.

There is nothing in nature which so readily absorbs taints as milk, cream and butter. Cleanliness and neatness are the *alpha* and *omega* of "*gilt-edged*" butter. Clean, sweet dairy-rooms are *an absolute necessity*. Slats should be used instead of shelves, because the milk will cool much sooner if the air circulates about the bottom of the pans.

Mrs. A. has a reputation for making the best flavored butter in the village, and always commands from five to ten cents per pound more

than her neighbors. We will visit her milk-room and learn her secret. How deliciously sweet it is! What does give it such an odor of the hay-fields? We notice bundles of dried herbs hanging from the walls fastened upon nails, and learn that they are made of the branches and blossoms of the tall, feathery "sweet clover." Mrs. A. tells us that it will retain its fragrance the year round; and she thinks that it possesses an antidote against mould. We cannot say as to that; but we do know that it perfumes a dairy deliciously, and that cream which imbibes that flavor must needs make sweet butter.

"*Cleanliness is akin to godliness.*" This is Mrs. A.'s favorite maxim, and she practices what she preaches. The slatted shelves, table and floor are models of neatness! A large cream jug stands by the netted window; it is covered with a wire fly-cover—not kept closed from the air. When the first cream is put into it, one heaping table spoonful of saltpetre is stirred in. Every morning and night, when additions are made to it, the whole contents are thoroughly mixed together. The stone jar holds three gallons of cream; when two-thirds full another table spoonful of saltpetre is added. This keeps the cream perfectly free from a bitter taste, and does not harm the butter-milk *in the least degree.* It has been used for years, and the buttermilk is drank and used in the family without any deleterious effect. Mrs. A. skims her milk before it clabbers; as soon as the milk has grown slightly acid the cream is removed. She keeps four cows—Alderneys—and during the summer churned every fifth day, averaging 36 pounds at a churning. Milk and cream were freely used in the family. Her dairy is on the north side of the house, its window shaded by trees. Not a fly dares enter its walls. Not an article is kept in it but milk, butter, pans, flour and sugar barrel. Several firkins of butter stand ready for market. Those filled in June and July were packed in larger sized firkins, and surrounded with rock salt—several inches of it were placed over the covers—and the good woman assures us that they will come out "gilt-edged." We do not doubt her assertion. The room is its guarantee! She shows us her "*Patent*" churn. Her husband purchased it for her this season, and she declares it has been *hands, arms and muscles* for her!

"I'm a feeble woman, as women go, and after working my butter I was allers good for nothin', now I aint one bit tired. My boy, Joe, does the churnin' and the workin'; I do the saltin', weighin' and packin'.

She wraps up in snowy cloths several *lovely* butter cakes, stamped with roses and lilies, for us to carry home. We bid her adieu, having learned her secret.

A few days after we called on Mrs. D. As we entered the room we heard high words,—cross tones,—evidently *Paterfamilias* was "on a rampage." Mrs. D. was too excited to smooth down her ruffled feathers at once, and receive us as a guest. She was not city bred; had never learned the lesson of concealment; could not smile when full of woe. So we learned that Mr. D. was indignant at the price he had obtained for the butter she had toiled so hard to make. "Only thirty-five cents, and Mr. A. had received fifty-five! Was there ever such a difference made before?"

We endeavored to calm our friend's troubled spirit by drawing her attention to other subjects. But in vain; "butter" was the theme upon which her tongue would dwell. At length we thought it best to ask to see her "milk-room."

Oh, what a sight was there! A large room enough,—ten feet by twelve,—but crowded with everything! In place of the "sweet clover," codfish was hung on the walls, baskets of apples stood under the table, half mouldy squashes mingled with the *debris*. Oh, it was pitiful! What wonder that soap grease instead of "gilt-edged" butter issued from that dairy! We pitied those who would eat of that butter at thirty-five cents per pound. The flies were *everywhere*; they were drowned in the cream and blackened every place. We would not have taken all the product of that "milk-room" for a gift! Half under and half out from the table stood an open churn with a crank, to be sure, but yet a very poor concern.

We asked if she had never tried the new churn.

"No; Mr. D. had no money to spend on 'novelties.'"

"Does not he buy or hire a mowing machine and a horse-rake?"

"Yes, he hires 'em; he says they save a heap of work; but some men, farmers at least, think wimmen's work needn't be saved. There's enough o' them. If one dies,—why wives are allers to be had! Costs a little to bury 'em, perhaps, but they like novelties in the shape of wives!"

Alas! I could not dispute that statement. Wives are always to be had; servant girls of a good quality are the scarce articles! Mrs. D. looked so fragile and worn as she talked and sighed, that I thought it might not be long before Mr. D. tried a "*novelty*" in flesh and blood. She had five little children—the oldest ten years. She made butter from five cows; kept no servants; did all the household work! Could one expect that she could make "*gilt-edged*" butter?

We staid an hour or so with her; and when her grievance had subsided, we told her of Mrs. A's dairy; of the delicious fragrance of the room; of the perfectly kept milk shelves, table and floor; of the ease with which her butter was worked; and of the perfect neatness which pervaded all parts of her kitchen, pantry and dairy. She listened silently. She felt the force of the contrast between the two

houses; but, alas! she had but one pair of hands and feet to accomplish all the daily work, while Mrs. A. was blessed with two daughters who had left school, and were willing and able to aid her. We wished that we could inform Mr. D. wherein the secret of high priced butter lay. Of course, it was in superior cleanliness, but he also needed to learn that one woman can never do the work of three, and not leave a great deal undone! He could not do the work of two men on his farm—could not mow and reap, sow and hoe the plough at once; yet his wife was expected to do more than this—to do more than mortal woman could ever do *well*. We left her with a sore heart.

At Mrs. A.'s all was bright and cheery. She told us that all the product of the butter belonged to her and the "girls." Mr. A. had all the butter, cream and milk he desired; the family were well supplied with them, and then the rest was sent to the city. A high price was always obtained; and they enjoyed the money. Their house and appearance testified to the truth of the statement. Several of Prang's delicious *chromos* hung on the walls. Instructive books, entertaining magazines and papers, were upon the table—among them a copy of one of the leading agricultural papers of the day.

"I took that paper for *'father.'* Gave it to him for a Christmas present. He sets lots by it. I shall allers take it," said Mrs. A.

In this family the sons do not leave the farm for the dazzling temptation of the city. Do you know the reason? Their home is where the heart is, and they are allowed a regular share in all the profits of farm and dairy. Therein lies the secret. S. O J.

For the New England Farmer.

A HUSKING PARTY.

I have seen, in an old book, a picture representing one of the time-honored institutions of New England—the husking party. The men, in high-collared coats, and bell-crowned hats, form a circle around a miniature Monadnock of ears, which seem to retain their perilous position with wonderful tenacity. I am sure that anywhere but in a picture, there would be a "land slide" among the ears. Two square box lanterns cast a great deal of light over the scene; in fact it seems to be nearly as light as day there. (By the way, we have one of those lanterns, which would make quite a respectable "tiniment" for a moderate sized family.) The countenance of one of the workmen is overshadowed, not by grief or care, but by a suspicious looking tumbler. It is presumable, however, that this is all right, as we are told in the description, that "while the sparkling cider is freely circulated, the work goes bravely on." We are also informed that "the bounteous banquet is not unfrequently followed by a ball; as most of the young men are accompanied by their favorite lasses."

Last evening I had the pleasure of attending a husking party. In the many years that have elapsed since the above mentioned description was written, some changes have taken place; but the essentials, the work and the banquet, remain the same. The "hall" was illuminated by kerosene instead of tallow, and the corn, instead of being formed into romantic mountain ranges, was thrown into plain matter-of-fact baskets, and ultimately deposited in the grain room. The lasses, "favorite" and otherwise, instead of idling away the time in the house, marched bravely to the scene of action, and remained until the work was done. Those interested may be assured that they accomplished their allotted tasks in a very creditable manner. Fair hands performed the unaccustomed labor with a skill and celerity that would have astonished more than one *paterfamilias* could he have witnessed the performance. As it had rained during the day, a part of the corn, which should have been in the barn, was still in the field, unfortunately for the display of our industry. Our task was therefore finished in good season, and we adjourned to the house, where a bountiful supper, worthy even of the culinary skill of our hostess, awaited us. This received as much attention as was compatible with the lateness of the hour. We then assembled in the parlor, ranging ourselves against the walls, like so many children at their first party. You can imagine just how we looked. In one corner was a group of lads who evidently wished themselves somewhere else. Young ladies, and ladies *not* particularly young, (the subscriber belongs to the latter class,) conversed in low tones with their nearest neighbors. "Ah, passing few are those" who have sufficient bravery to commence a general conversation in a company of more than a dozen persons. Those few are generally present however; and their endeavors in this case to "draw out" the company, were highly praiseworthy, though only partially successful. The hour of departure soon arrived, and bidding our friends good night, we returned home. So ended the husking party. Mattie.

Marlboro', Oct. 13, 1870.

Our Receipt for Curing Meat.—To one gallon of water, take 1½ lbs. of salt, ½ lb. of sugar, ½ oz. of saltpetre, ½ oz. of potash. In this ratio the pickle to be increased to any quantity desired. Let these be boiled together until the dirt from the sugar rises to the top and is skimmed off. Then throw it into a tub to cool, and when cool; pour it over your beef or pork, to remain the usual time, say four or five weeks. The meat must be well covered with pickle, and should not be put down until at least two days after killing, dur-

ing which time it should be slightly sprinkled with powered saltpetre, which removes all the surface blood, &c., leaving the meat fresh and clean. Some omit boiling the pickle, and find it to answer well; though the operation of boiling purifies the pickle by throwing off the dirt always to be found in salt and sugar.—*Germantown Telegraph.*

"WHAT AILS THE COWS?"—COW-POX.

A correspondent at Almont, Mich., writes us as follows:—"I have two young cows apparently in good health, except a breaking out of sores on the udder and teats. One cow four years old came home one night with one quarter of her udder swollen very badly, and she appeared to be in great pain for nearly a week. At times the swelling would go down and then it would swell again as bad as ever. Previous to this her teats were covered with scabs, which did not appear to be very sore, nor anything more than mere surface sores.

"My other cow was troubled with the same kind of humor but it seemed to go away of itself. Out of twelve or fourteen cows in this neighborhood, nearly all were troubled with this humor. Now, my cow last mentioned has large sores coming out on her teats and udder which look very bad. Some say that it is the cow-pox. If it is, or whatever it may be, let me know through your valuable paper, and prescribe a remedy, so that I can cure them."

REMARKS.—The description of the eruption and sores above given, indicates that the disease is cow-pox, which appears first in the form of pustules on the teats, which are easily broken in milking, and which if left alone, break of themselves, and discharge a thin, unhealthy fluid. The pustules are surrounded by a broad circle of inflammation, and if neglected or roughly handled, sometimes run into ulcers, very foul and difficult to heal. If the disease is cow-pox, the hands of the milker will be affected by it. Pustules appear on the joints of the hands, and the ends of the fingers, and there is sometimes considerable fever. The pustules burst in three or four days, and sometimes become troublesome sores, which are communicated to any part that they touch.

There is another eruption on the teats of the cow which bears much resemblance to cow-pox, and is often confounded with it. The pustules are smaller, but are not so round or so deep, and have not the blue color of the true cow-pox. The following recipe has been frequently used with good effect for cow-pox; Sal ammoniac, a quarter of an ounce; white wine vinegar, half a pint; camphoreted spirit of wine, two ounces; Goulard's extract, an ounce. Mix, and keep the lotion in a bottle for use.

For ordinary sore teats the following ointment is a remedy: Elder ointment, six ounces; bees-wax, ten ounces. Mix, and add an ounce each of sugar of lead and alum, in fine powder—stir them well together until cold.—*Western Rural.*

DOES DAIRYING IMPROVE LAND?

In reply to a question as to the effect of dairying on the general fertility of the farms in Herkimer County, N. Y., or elsewhere, Mr. X. A. Willard replies as follows in the *Rural New Yorker*:—

There is no question but that lands may be kept in fertility and increased in productiveness with more ease and with less expense under the dairy than under a system of grain growing. The dairy farmer has the means at his command for making large quantities of manure. That he is wasteful of this material, and injudicious in its application it may be often, and perhaps as a general rule, is charged against him. Still, under all mismanagement in this regard, it is believed that dairy lands are steadily improving in the elements of fertility, and are now in better heart for grain crops than when grain-growing was made the business of the farm. It is true that upon many farms the yield of grass is much less than it should be, but this is not so much on account of any lack of fertility in the soil as from neglect of proper culture—allowing weeds to creep in, overstocking pastures, feeding down the aftermath of meadows, cutting grass when over ripe, and other abuses which, in time, have served to lessen the product. When farms have been properly managed, and have received the liquid and solid excrement of the stock, judiciously applied, they have been wonderfully improved, and are annually yielding immense crops.

The dairymen of Central New York, where dairying has for a long time been followed as a specialty, are generally "well off as to worldly goods," and in wealth will compare favorably with farmers in any other part of the State. Dairy lands we think have increased in value more rapidly than the grain lands of the State.

Herkimer County, the oldest cheese dairying county in New York, contains about 278,000 acres of improved land. This is divided up into two thousand farms of fifty acres and over, and a thousand farms running from three to twenty acres; or in all, say about three thousand farms. The value of products taken from the farms in 1864, according to the State census, was as follows:—

Dairy products	$3,157,129
Grain products	1,109 781
Some thirteen other products	2,524 8?2
Total agricultural products for one year	$3,791,791

Now, if this sum was equally divided among the 3000 farms, it would give each farm $2263 as the average income. But as there are 1000 farms that run from three to twenty

acres, or that are under fifty acres each, some idea may be had as to whether the farming is as productive in its results as in other sections. If we have figured correctly, the average product per acre in 1864 amounted to some $24. The highest annual product of cheese sold from the county has been a little above 18,000,000 pounds. In 1864 the cheese crop was only a little over 13,000,000 pounds.

AMOUNT OF BUTTER IN MILK.

With the view of learning the amount of butter to be obtained from a given quantity of milk, I have recently tried the following experiment at my creamery in Onondago County, N. Y., where I receive milk from three hundred cows.

The milk delivered at the factory on Saturday evening, July 30th, and Sunday morning, July 31st, amounting to 5729 pounds, as soon as received, was run into deep cooler pails, and these were set into the tank of spring water. The temperature of this water is maintained at a uniform temperature of 53 degrees by the introduction of an inch stream of water from the spring.

In this vat the pails remained for about thirty hours, when they were removed in order that, by a free exposure to the atmosphere, the milk might be soured. It might have produced a better result if the pails had been allowed to remain immersed in the water until the milk became loppered, but we feared that so long an exposure of the milk and cream to such a degree of cold would cause a bitterness of flavor to the cream and the butter made therefrom.

When about forty-eight hours old, the milk having soured and thickened, the cream was removed and kept until the next day. On Wednesday churning was done in large dash churns operated by steam power. From this 5729 pounds of milk there was produced 232 pounds of butter. This shows an average of 24 69-100 pounds of milk as being required for a pound of butter, very closely meeting the opinion generally held, that two and a half times as much milk is used in making a pound of butter as in producing a pound of Cheese. At the season of the year above named a yield of one pound of cured cheese from ten pounds of milk is very satisfactory. This would have produced 573 pounds of cured cheese from the milk used in this experiment, which gave me 232 pounds of butter.

Cheese at that time was worth 14 cents a pound. Butter to pay as well as cheese at this price, would need to sell at fully 35 cents a pound, allowing that the material used in making and packing butter cost one half cent per pound more than those required for cheese.

From this loppered milk, which in my case, went to the pigs, there is sometimes made a kind of cheese used mainly by the German Jews. The curd is heated to a high temperature, is not salted, but is placed in small bags holding about one-half a pound, and subjected to moderate and long continued pressure. When removed from this pressure, the cheese is cone shaped, two sides being flattened, salt is rubbed upon the outside and the curing is done in a cool damp place, as is the case with Limburg cheese. There is small demand for this kind of cheese, and if there was a large demand, the prejudice of the Jews will allow them to eat only that which Jewish hands have made.—*Gardner B. Weeks, Syracuse, N. Y., in Western Rural.*

FALL MANAGEMENT OF BEES.

All honey for market should go this month. Any honey leaking from the glass boxes should be wiped away before packing. Paste heavy paper over the opening, to keep out dust and insects. The cases to carry it in should be small, holding about fifty pounds, as mentioned last month. Boxes should not be packed one on the other, and the cases, instead of being just twenty-six inches long, by a foot wide, may be made to suit the size of box, varying from that length, if need be, one inch or two wider or longer. An exact fit should be made so that no sliding can take place in the cases. In handling, never allow the case to drop, even one inch, never slide it on the floor, allowing it to strike on something solid, breaking the combs, ruining their beauty, and wasting the honey. Give the carriers to understand that these things *must* be observed, and if they are, it will go safely. Send by canal when practical. Until bee-keepers are convinced of the necessity of removing *all* infected colonies by this time in the season at least, we must expect a continuation of the spread of the disease. We will not discuss its origin; we know it is contagious; we know too if put out of the way on its first appearance, that it cannot spread. Bees must not be allowed access to a particle of the contents of such hive until purified. The hive may be cleansed for further use by thorough scalding or exposure to the weather for one winter. Those who wish to get their bees in larger hives can do it better now than in severe cold weather. It is much less trouble to transfer than one without experience would suppose.

The experience the past summer, of Hazen, Novice, Hetherington, and Quinby & Root, indicates that if our bees pay us liberally, we must be liberal to them. Provide *plenty* of room, *convenient of access*, which room we propose to supply with *furniture* in shape of artificial comb ready for use, never doubting that our industrious little friends will show their sense of indebtedness, by immediately acceding and using it to the best advantage..

Our bee-men, with small means that can afford room for only a few combs and bees,

and very little honey, and are very incommoded by the crowd, would do well to provide for better accommodation for their tenants, or fall behind progressive bee-keepers.—*M. Quinby, in Bee-Keeper's Journal.*

NEW PUBLICATIONS.

BEAUTIFYING COUNTRY HOMES. A Hand-book of Landscape Gardening. Illustrated by Plans of Places already Improved. By J. Weidenmann, Superintendent of the City Park, and of Cedar Hill Cemetery, of Hartford, Conn. New York: O. Judd & Co. 1870. Boston: A. Williams & Co. Quarto, price $15.

Castles in the air and gardens on paper may look harmonious and attractive, but at the same time be impracticable by the workers in wood and stone or by the diggers of the soil. We commend, therefore, the principle adopted by the author of this book of illustrating his theories and directions by specimens of landscape gardening which have been executed for occupants of country homes, and of giving the location of places thus embellished, with the names of the owners thereof, that those who would beautify their own places may have an opportunity of seeing the effect of the modes recommended, before they incur the expense of applying them to their own premises.

In this volume we have twenty-four full-paged, colored lithographic plates of improvements that have been made on estates in the vicinity of Boston, New York, Hartford, Albany, Chicago, Cincinnati, Philadelphia, &c.; as well as a large number of fine wood cuts illustrating the several processes of the work of improvement.

As our eye has never been entirely satisfied with the results of the modern system of Landscape Gardening, we opened this beautifully executed, elaborate and costly work with the hope that we should here find a statement of the reasons on which the system is based that would better satisfy us of the correctness of those principles of taste which are involved in the popular modes of improving our grounds. But instead of this, we meet in the introductory remarks the following announcement:—"*As it is necessary to be brief*"—[a necessity not evidenced by the large number of blank pages in the volume]—"we shall not give the arguments in favor of the methods recommended here, but confine ourselves to such instructions as our own personal practice, as well as the experience of the most eminent landscape architects, both in this country and Europe, have taught us to be the best."

But "the best" teachings of these "eminent landscape architects" differ very much at different times. Some years ago their "experience and practice" resulted in geometric squares, oblongs and triangles. This "mode" was adhered to till the eye was offended by mathematical stiffness. To avoid this error, the modern landscape gardener, it appears to us, has gone to the other extreme, and good taste is offended by the invariable squirmand irregularity of outline. The old system of gardening has been criticised as a mere extension of the plan of the dwelling; but if the present principle of beautifying country homes, were to be applied to our residences, should we not find ourselves burrowing like woodchucks?

Is it impossible to combine the good points of each system into one harmonious and pleasing whole? May not the geometric and the "natural" be united in landscape gardening, with a better effect than is produced by a close adherence to either?

But what is *natural*? Trees and shrubs may grow in clumps, and brooks may run in winding channels; but in many of the various manifestations of Nature a wonderful sympathy with the laws of "geometry" is displayed. The trunk of our trees, the straw of our grain, the crystals of our salt and of our rocks; the lightning that angles across a dark cloud; the architecture of the honey bee and of the spider, are conformed to mathematical laws, but are they any the less natural, or any the more offensive to cultivated taste?

RELATIVE VALUE OF DIFFERENT ARTICLES OF FOOD.

In reply to an Illinois farmer who asks which is the cheapest feed for fattening sheep, corn at 60 cents per bushel, oats at 40c, barley (No. 2) at 75c, oil cake $35, or bran at $15 per ton, Mr. J. Harris says, in the *Agriculturist*, that assuming the value of the manure from a ton of corn to be worth six dollars, the following statement may be made:—

	Price per ton.	*Value of manure.*	*Actual cost of f od.*
Corn at 60c per bu., or	$21 50	$6 65	$14 85
Oil-cake	35 00	19.72	15.28
Bran	15.00	14 59	0 41
Oats	25.00	7 70	17.30
Barley	31.66	6.32	25 34

Mr. H. adds, "I do not think there is much difference in the *nutritive value* of a ton of corn, oil-cake, oats, or barley, and consequently, leaving the manure out of the question, corn at the above prices, is the cheapest food, and, with the exception of bran, it is also the cheapest article to feed, even after deducting the value of the manure."

Though this estimate is based on Illinois values, it may afford New England farmers a test by which to try their own experiments, and perhaps induce some one to make a statement from the teachings of his own experience.

SOCIETIES, CLUBS, &c.—We have received a very neatly printed pamphlet of forty-eight pages, from the Agricultural Commissioner, giving a List of the Agricultural, Horticultural, and Pomological Societies, Farmers' Clubs, &c., on the Books of the Department of Agriculture, July 1, 1870, together with the name of the President and Secretary of each. By a rough estimate, we find that about 1600 associations are included in the list. It will be valuable for reference. The post-office address of the secretaries is also given.

ABSORBENTS IN THE BARN YARD.

MANY times while visiting among farmers we have gladly accepted an invitation to look at the stock of cattle, but in a few cases we have found it difficult to get across the barn yard without floundering through mire, specimens of which, though on ones boots, would scarcely be appropriate in the parlor. This certainly is a sign of slack, if not poor management. The only profitable farming in New England must spring from high manuring, and high cultivation. Without this, good crops may occasionally be obtained, but they will not generally be profitable ones The first essential, then, to profitable farming is the manure.

There is no other place where a large amount of coarse materials can be so profitably worked up into good manure, as in a barn yard that was formed so as to be dishing in the centre. Where cattle are yarded at night, it is especially important that the yard should be covered with something which will not only absorb their droppings, but will serve as a dry and easy bed for them to sleep upon. If the litter of one kind and another is a foot thick, so much the better. All the waste straw, hay, orts left by the cattle, corn butts, and every refuse from the barn may appropriately go to the barn yard. To these should be added, in the summer, brakes and rank meadow grasses before they go to seed, turfs in abundance and peat from the meadows. All this material will be kept moist by the rains and droppings of the stock, and when mingled and pulverized by their feet, will furnish a most valuable mass that may be removed at least twice in the year. The summer season is the best time, because the process of fermentation goes on then more freely.

New materials should be added every week, and no work on the farm will pay better than strict attention to this, which is the main source of all success. It will not be found necessary to fill the yard at once, to the exclusion of all other duties, but make it a standing rule to occupy every hour that can be spared in keeping the yard properly supplied with such materials as will increase the bulk and value of the mass.

An occasional ploughing will assist both pulverization and fermentation, as it will lighten up the materials, let in sun and rain and break up the coarser particles.

The common want among farmers, all over New England, is larger quantities of something that will enrich the soil. Pressing and important as this want is, many of the means common to all,—and well understood by all—are greatly neglected. Were the barn yards, barn cellars and pig styes properly supplied and managed, the manure on our farms, generally, might be increased from one-third to one-half.

Autumn is an excellent time to commence the good work.

EXTRACTS AND REPLIES

SAMPLES OF PEAT.

MR. BROWN:—I send three specimens of my peat muck. No. 1 is the top stratum, generally about two feet deep. No. 2 is the middle stratum, and of about the same thickness as No. 1. In some places there is another variety resembling No. 2, but tougher; the roots much less decayed, and in color just like old cider pomace. No. 3 is the lower stratum, and from three to eight feet in depth. I want your opinion of its value, also the relative value of the different specimens.

REMARKS.—We are always glad to notice an increased attention given to the subject of peat. The deposits of this material in New England are not only to become of vast importance as manurial agents, but as an article of fuel. It is already pressed into the form of bricks, dried in the sun and used for household purposes. In some instances it is thrown, fresh from the pit, into furnaces under steam boilers, and performs an economical service there; even the "water it contains being made to contribute to its heating effect." In Germany the most beautiful oils have been obtained from peat; and also coal, illuminating gas, paraffine, kreosote and water, containing from one to three per cent. of ammonia. All these substances are susceptible of useful applications in one art or another.

But it is in an agricultural point of view that we wish to consider the matter at present.

The three samples of peat forwarded by our

correspondent have been carefully examined. They are all well worth digging, and carting a mile, for use on the farm. Sample No. 1 is the most highly decomposed, and undoubtedly the most valuable of the three; but even this, upon wetting and rubbing it between the fingers, is found not fine and unctuous to the touch as peat is often found. It is sufficiently fine, however, to be used in any compost. The samples two and three, would be excellent for the barn yard and pig stye; or for bedding under cattle; or as an absorbent in the trench behind them.

A thorough analysis of peat would require a somewhat long and expensive process. This is not essential in your case, nor in that of most farmers, as you can experiment with all the varieties of peat you may have, upon small plats of ground. Be careful, however, that the peat is not mixed with other substances, or if it is, made all alike, and put it all on the same kind of soil. Leave a space of a rod or two between the plots, and cultivate one plot as much as the other. Such tests will show the value of the peat.

INTERCHANGE OF VIEWS AND EXPERIENCES.

I value the NEW ENGLAND FARMER, as it is so good a medium for farmers to interchange their thoughts and experiences. When I am in want of instruction in agriculture, I seek it through the columns of the FARMER. I like also to read the reports of weather and crops in different sections.

REMARKS.—Thanks for your favorable expressions of the FARMER. If sound information cannot be gained from the scores of its intelligent and practical correspondents, it will scarcely be found anywhere.

PLOUGHING AND SOWING TO KILL BUSHES IN A PASTURE.

I have a side hill in my pasture, which I wish to plough to kill the bushes. Now what grain is the best to sow for feed, and when the best time to sow it,—early in August or early in the spring?

REMARKS.—It is somewhat perplexing to determine what is best to be done with such a pasture as you describe. If there are many bushes, the usual way is to cut and burn them, and if not too stony, plough and plant potatoes one year before seeding to grass. If not very stony, and thoroughly burned over, perhaps a good harrowing would prepare the surface for grass seed and grain to be sown together early in the spring. We have not known this process tried, but it seems feasible, and if successful would save the cost and delay of ploughing. We should be glad to learn the result of such an operation. Sow oats, rye or barley, and cut green for fodder.

ALSIKE AND COMMON CLOVERS.

I also want information, concerning the Alsike clover. How much seed is required to the acre, and what is the cost per pound, and will it be good to stock down a pasture? I am almost discouraged with the common clover. Fifty years ago my father would seed to clover, and I have known it to produce a good crop the third year. Now, on the same land I can get no clover the second year, and yet I get larger corn than my father did. Can you tell the reason that clover dies so quick now?

REMARKS.—The Alsike or Swedish clover we have not seen growing, but learn that it promises to become very useful. Only about four pounds of seed are sown to the acre. The foliage is said to be more abundant than our red clover, and does not turn dark to the same extent when the plant has matured. The flowers are very beautiful, of larger size than white clover, of pinkish color and very fragrant.

If our common red clover is cut before the seed ripens and falls, and what grows the second time is fed off or cut off before the seed ripens and falls to the ground, the clover crop will at once die out. But with such re-seeding it will continue for many years.

DROUGHT AND ITS EFFECTS.

Here the drought has been severe. I do not think the oldest people ever knew its like. Streams that commonly supply ample water for mill purposes are now almost dry. We have not had a rain to thoroughly wet the soil since early in April. Corn and potatoes have suffered badly in dry soils; to the extent of one half in some fields. Some years I mow ten tons of rowen; this year about half a ton. And yet at Ashfield, less than twenty miles distant, southwesterly, no crops have been injured by the drought. ELIJAH GUNN.

Montague, Mass., Sept. 19, 1870.

APPLE POMACE.

Is there any value in apple pomace for manurial or other purposes? What is it worth per ton?

Marlboro', Mass., Oct., 1870. SUBSCRIBER.

REMARKS.—Pomace is usually thrown from cider mills into the highway, streams and elsewhere as though it was generally thought to be worthless. Still we have seen cattle nibbling at these piles, which would seem to indicate that "unerring instinct" detected value in the mass. A friend says that he knows one man who buys all he can get for feeding purposes. But how much he pays, or how he feeds it, our informant could not tell; probably, however, in small quantities, and perhaps as a relish or seasoning for other food.

Applied in large quantities, in its crude state, apple pomace is not unfrequently fatal to vegetable life, in consequence of the superabundance of acid (tartaric) which it contains. Elder bushes and bushes even more tenacious of life than the elder are often completely deadened in a single season by covering the soil around the roots by a layer of pomace four or five inches deep. But after this acid is neutralized, by quick lime, it becomes a valuable manure, especially for apple orchards, and is highly prized for that purpose in France. Where lime cannot be easily or cheaply obtained, the pomace may be deposited in some low place where it will not be liable to wash away, and what wood ashes is at hand mixed with it, with five or six times the amount of pomace, of old, well-dried meadow-muck. Let it lie at least a year, turning the mass over two or three times,

and a few months before using, mix in a load or two of barn manure by way of leaven, and you will have some good manure.

PORK TAINTED JUST AFTER BEING DRESSED.

Last fall I had a hog butchered in the afternoon, and the next morning the lean had begun to putrefy, and by night the spare rib and the lean, clear back to the kidneys, smelled so as to be offensive. The hog had been perfectly well, never refused to eat a meal and was butchered and dressed with others, and all hung up through the night. The others were all right, and mine spoiled. If you or any of the readers of the FARMER can tell me the cause, I should be very much obliged.

Manchester, N. H., Oct., 1870. A READER.

REMARKS. — We have known several similar cases. They sometimes occur when the hog is dressed in a moderately cold day; just cold enough to dry and contract the skin, but not sufficiently so to cool the inner portions of the flesh. To prevent the taint, as soon as the hog is dressed, split the body down through the backbone, and unless the animal is a very large and fat one, it will cool sufficiently quick to prevent any injury. Even if a hog is not a large one, it is always safer to split the carcase down, although it may not be quite so convenient sending it to market as when whole.

Possibly the man who dressed the lot of hogs of which yours was one, allowed yours to lie upon the ground, after being stuck, while he was dressing the others. Sometimes pork will be tainted by lying in that condition only an hour or two.

We are not certain but there may be some atmospheric influence which induces the taint, for more cases occurred last fall than we have known in a life time before.

PREPARING A HOLLOW FOR TREES.

I contemplate filling in a hollow for setting out fruit trees. I have plenty of gravel, sand, loam and swamp mud. Please inform me through your paper the best way to do it. SUBSCRIBER.

Fiskville, R. I., Oct., 1870.

REMARKS.—It is difficult to say what material you had best use without seeing the spot itself which is to be filled.

If it is loose gravel, fill with loam; if sand, fill with loam and muck; but if an adhesive clay soil, fill with sand and loam, and plough deeply so as to mingle them thoroughly before planting the trees.

A STUB IN THE HORSE.

My brother has a nice five-year old horse which was injured two years ago by having a stub jammed in his side, back of the shoulder. The wound matterated, the stub come out, the sore healed up and left a scar. This summer a bunch has gathered near this scar about the size of a goose egg, and is hard and loose. He has tried a number of remedies but it still remains. Can you give us any information of its cause, or any means of cure?

ELBRIDGE KINGSBURY.

Roxbury, N. H., Oct., 1870.

REMARKS.—If the horse is a valuable animal, and the bunch is loose, we should advise you to employ the best surgical skill you can get, and have the bunch taken out. The bunch was probably caused by the stub. The operation need not be a long nor painful one.

APPLES AND CIDER.

Apples, cooked or raw, are to most people very wholesome. Sweet apples contain considerable nutriment and add some vitality. Why don't farmers raise more sweet apples? This is being an uncommon year for this fruit. Every family who has a supply of apples should dry a good stock, and should prepare a goodly quantity of "cider apple sauce," or "apple butter." It is very wholesome, especially with meats; ten times more so than tomatoes. Apples keep the best in cool, dry cellars. As apples are a natural fruit of this latitude, the expressed juice (cider) is the natural spirit of this climate. It should never be made in any but a wooden mill. Every one who has a suitable cellar to keep cider in should bottle up a few gallons for future use, as cider is of great medicinal value and it can be kept for years. Boiled cider is of much medicinal worth. Take sweet cider just from the press, boil four barrels down to one, put it in kegs or jugs, cork tight, put it in a cold place and it will keep good for years. No family should be without boiled cider or a tub of "cider apple butter." DR. BOYNTON.

Lawrence, Mass., Nov., 1870.

SHARP STICKS UNDER MUCK.

If Mr. Call will view critically the surroundings of his muck bed, he will see that running water was there in the olden time, and that the beavers constructed there a dam. If he will also examine closely the sharpened end of the sticks, when freshly drawn from the mud, he will perceive plainly the marks of the beaver's teeth. A number of years ago a townsman brought to me a bushel of just such sticks as are described in the item in the FARMER of October 29, and which he excavated while ditching a meadow. The sticks were whole in form and apparently pretty sound when I first saw them, but after a few days of exposure to the atmosphere they cracked and crumbled away into dust. The print of the beaver's teeth was as plainly to be seen where the stick had been cut off, when they were first drawn from the mud and for some hours thereafter, as the nails on my fingers. The wood had been preserved in form by its constant contact with wet earth, for perhaps 200 years; but exposure to drying air in the course of a few days resolved them back to their original elements. There is not the least doubt in my mind that Mr. Call struck an old beaver dam, constructed perhaps centuries ago.

JOSIAH D. CANNING.

Gill, Mass., Oct. 29, 1870.

REMARKS.—We have also received from a Montpelier, Vt., correspondent, a similar explanation of the "sharp stick" mystery, together with some interesting facts in relation to the habits of beavers as observed by the writer while among the Rocky Mountains, which we shall publish soon.

CHALLENGE CROP OF APPLES.

October 27th, I gathered from a single tree forty bushels of apples, barrel measure; thirty-seven bushels of which were stored in my cellar, and three classed as cider apples. The tree is a seedling, and the fruit rather small, and in common seasons will keep till May.

PROVIDE BEDDING FOR STOCK.

Now is the time to fill a large pen with leaves, to which you can go for an armful to make a dry,

warm bedding for the animals next winter. If you can get sawdust by going not over four miles for it, lay in a quantity of that also. It is good as a bedding, and as an absorbent of urine. Thus you will add to the comfort of your animals and to the size of the manure heap. "The merciful man is merciful to his beasts," and here in New England we must learn to be merciful to the soil.

CLAY AS A DRESSING.

If clay can be procured by carting not over one mile, and on a road not too steep for drawing a decent sized load, I can recommend, from experience, its application in small quantities to all lands except those wet or already sufficiently clayey. Now is the time for carting it. The frosts of winter will prepare it for spreading in the spring.

BE GENTLE WITH ALL ANIMALS.

Boys, if you start with the milk pail in a bad humor, remember that the great law, Do unto others as you would that they should do unto you, should govern your conduct towards the dumb beasts under your care, as well as towards your equals. When your fingers are cold and stiff a hard and rough squeeze of them gives you pain; the same is true of the teats of the cow you grasp to milk in a frosty morning. Be gentle, be reasonable and considerate.

O, ye people, who profess righteousness, and believe that you shall be judged by your works, don't abuse by kicking, striking, starving or exposing to cold or storms, any of the noble, but patient animals, that are dependent on you for comfort or discomfort,—for pain or pleasure, during the long days and cheerless nights of the coming winter. T. A. C. NICHOLS.

Plymouth, N. H., Nov., 1870.

DR. SHURTLEFF'S SEEDLING PEARS AND APPLES.

I send you a few specimens of my Seedling pears, and a Seedling apple that I call Trout; also, an apple which I call Victoria, that came from the western part of the State of New York.

The *Pemberton Pear* is a rich fruit, and the tree a good and regular bearer. The *Manning* is a good and handsome pear. The *Admiral Foot* is a good bearer, and a sweet and vinous pear; also my seedlings, Gen. Grant and Shurtleff's Favorite. The one unnamed is also a rich pear.

L. A. SHURTLEFF.

Spring Grove, Brookline, Mass., 1870.

REMARKS.—The fruit was received in good order, and our venerable friend, who, though seventy-eight years of age, is still active in his efforts to improve fruit and benefit his fellow men, will please accept our thanks for his kind remembrance, and for the pleasure which so rich a box of fruit affords both eye and taste. The New York apples are very large;—one weighing 12½, two full 10, and one 9½ ounces; flatish, but of handsome form; very light green, striped or splashed most beautifully with red. Altogether the Victoria is a splendid apple.

We do not know that we can add anything to Dr. Shurtleff's description of his seedlings, and will only say that the Pemberton is a green pear with dark red cheek; the Manning a light yellow, with a pale blush on some specimens, and of good flavor; the Admiral Foot is dark green, russet at the crown, and specked with brown; the variety unnamed is dark yellow, shaded with dark red, crown light russet. The Gen. Grant is a large handsome yellow pear, handsomely dotted, and a little russet about the stem. Shurtleff's Favorite is smaller, also yellow. At the late Pomological Convention at Philadelphia, the president, Hon. Marshal P. Wilder, spoke of the forty or more varieties produced by Dr. Shurtleff, mentioning particularly the President, Gen. Grant and Admiral Farragut, as large. He said they were generally vigorous, and all about alike in quality. On account of the large size of the varieties above named, he advised their trial by fruit growers.

The seedling apple is mostly red, somewhat mottled and specked with light yellow Mild, sub-acid, and we should judge ripe in October.

GARGETY COW.

I have a splendid cow, four years old, that has a swelling of the udder. The first that I noticed of the trouble was a bunch in the teat, near the middle, about the size of a bean. This increased till it shut off nearly all the milk in that quarter, and the bag swelled considerable. In a few days it commenced in another teat in the same manner. It has now taken the third teat, and the milk is not fit for use. The cream was quite stringy sometime before I noticed the bunch.

Zoar, Mass., 1870. A. A. HAWKES.

REMARKS.—We presume that the trouble with your cow is what is usually called garget, which may possibly have been induced by high feeding, as you remark she is a splendid animal. In the bound volumes of the Monthly FARMER much has been published on the treatment of this disease. Prof. LAW recommends a dose of one pound of epsom salts, to be followed the next, and for a few successive days, with an ounce of nitre and a drachm of iodide of potassium. Also to rub the udder daily with an ointment composed of one part of iodine to twelve parts of lard.

Since writing the above we have received the following:—

CURE FOR GARGET.

Give the cow three or four quarts of strong tansy tea, which she will drink freely if troubled with garget, and it will effect a cure. I have tried this remedy several times with good success.

East Rumford, Me., 1870. A SUBSCRIBER.

OATS AND EARLY ROSE POTATOES.

Several months ago I noticed a suggestion in the FARMER that your correspondents record their failures as well as success in their farming operations.

Acting upon that suggestion, I will give you an item or two from my experience. Many friends, whose solicitude for my welfare was equalled only by their anxiety to dispose of the grain in their possession, have advised me to cultivate the Norway oat, extolling its enormous yield, weight, superior quality of straw, &c., while I, crusted over by old fogyism, turned a deaf ear to their importunities. Thus the matter stood until sometime in the month of February last, when suddenly, as if by magic, in the columns of nearly every journal in the land, there appeared a coarse wood engraving representing a man standing between two massive columns towering majestically above his head, said to be a couple of bundles of Norway oats. "That was the unkindest *cut* of all." "*Photographed from life*," said the veracious ad-

vertisement. I looked and was lost! Twelve dollars of my hard earnings went in exchange for six bushels of oats bearing a striking resemblance to hedge-hogs' quills. I sowed them in due season, and watched the development of the crop with much interest, and I must say that I was disappointed with them in every way. They smutted badly, the tremendous yield per acre was dwarfed down almost to the "teens," and common oats, sowed side by side, same soil and cultivation, did just as well, if not better. But after all, I do take a sort of grim satisfaction at times in viewing my bin of oats. Their peculiarly sharp and rakish appearance invests them with a sort of personality that one must admire. However, I rate them as the Peter Funks of the vegetable kingdom, and moralize on the gullibility of the human race.

Such is my experience with Norway oats, and allow me to add, that my experiments with early "Early Rose" potatoes have turned out in about the same way, and so No. Two's have multiplied more in name than reality. CENTRE BIT.

Bristol, Vt., Oct. 8, 1870.

P. S.—Since writing the above, a sympathizing friend, who sells oats of a tawny hue, tells me I have been cheated, and didn't get the simon pure Ramsdell Norway oats; he recommends that I buy seed of him and try my luck once more. I have the matter under consideration (?) C. B.

PREPARING TUBS FOR BUTTER.

Will some butter-maker tell me how to prepare my tubs so that my butter will not taste of the wood? I scald my tubs, let them stand till cold, then empty and fill with brine and let them stand a few days. Before packing the butter, I pour out the brine and rub the tub thoroughly inside with salt, with which is mixed a little saltpetre. My butter seems nice when packed, but after a few weeks, tastes of the tub. Is there no way to remedy it? If there is, what is it? LEARNER.

Waitsfield, Vt., Sept. 12, 1870.

LAMOILLE CHEESE FACTORY.

The Lamoille Valley Cheese Factory of West Milton, Vt., received in June 351,167 pounds milk, making 34,921 pounds cheese. Amount of sales for month at the factory $4516.40. Also received in month of July, 329,807 pounds milk, making 32,066 pounds cheese; amount of sales for the month at the factory $4244.81. Whole amount of sales for months of May, June and July, $12,-242 01. They have now on hand about 800 cheese of August and September's make.

D. L. FIELD, *Ag't.*

West Milton, Oct. 4, 1870.

AGRICULTURAL ITEMS.

—Mr. Jonathan Green, on Moultonborough Neck, N. H., has a hog, that in the last six years raised 108 pigs, and these pigs have been sold for not less than $4 each or $432.00 in all.

—A correspondent of the *Maine Farmer* says, "Were the average product of hay per acre in Maine one ton, we should enjoy a higher state of farming than we now do. Far too many farmers get from one-fourth to one-half ton per acre."

—A correspondent of the *Rural World* says that by placing any of the larger seeds and grains on a hot pan or griddle, if the vitality is perfect, the grain will pop or crack open with more or less noise. Where the vitality is lost, it lies immovable in the vessel.

The *London Field* gives a list of stallions, famous as winners of running races, but who proved failures or, at the most, only moderately successful in the stud. It says no one of the double winners of the Derby and St. Leger, has ever produced a winner of either race.

—Trees draw up from the depths of the earth, and that without the subsoil plough, moistnre that, charged with animal or other impurities, would otherwise appear in miasmatic exhalations; the moisture oxygenized by vegetable action is liberated into the air free from taint, and fit for human lungs. Trees present in their myriad leaves an immense evaporating surface, and the influence they exert on climate is greater than is commonly supposed.

—The single discovery of coal-oil not only introduced a new business, which has rapidly grown to large proportions, but has given rise to more than a thousand inventions, over three hundred of which have been patented for lamps to burn it in. Many new and useful chemicals have also been produced from it. Cochineal, which was formerly employed in dyeing the various shades of crimson and scarlet, is now almost superseded by aniline, a new product from coal-oil, which gives every shade of purple, every variety of blue, and all the gradations of scarlet and crimson.